ELKO ep®

INTELLIGENT ELECTRO-INSTALLATION

iNELS® BUS System

TECHNICAL CATALOGUE

www.inels.com

Presentation of ELKO EP Company

ELKO EP, which is based in Holesov, Czech Republic, has been with you on the electrical market for the past 21 years, covering a wide range of domestic equipment in the field of electrical installations. The last few years have seen dynamic development of smart wiring, in which our company has spent seven years developing and launching iNELS smart home system solutions. We have become market leaders in both modular devices and smart wiring. We're developing products that bring comfort to the customers and safety to the environment.

The Parent ELKO EP company has gradually grown in eight branches - Slovakia, Hungary, Poland, Russia, the Ukraine, Germany, Austria and most recently Spain. At the same time, we export to 60 countries around the world, and our products can be found under the world famous brand names (Schneider Electric, Eaton, HAGER, Siemens, MORS SMITT).

Our work is based on the development and modern technology. In practice, we appreciate you as our customer, because you're receiving good products and smart solutions, which meet your requirements. Own development facilities, precise production and distribution, all this gives you the opportunity to use solutions which are both innovative and practical. There are our modern manufacturing facilities to produce all our products. It was extended over the newest and fastest SMD line, which means for you guaranteed quality and flexibility of supply.

We have and supervise 80% share of the Czech market and the fourth position in Europe.
Current-year sales growth: 20%
Number of employees in Holešov: 170
Number of employees of ELKO EP Holding: 236

Awards and Recognition:
In 2011, the experts awarded the top products developed in ELKO EP: RF Touch - wireless touch control unit won a Golden Amper, Moravian Electrical and Electronic Association Award, Innovation Award of the year and PwC Special Award for Innovation. Also iNELS Multimedia - Multimedia control through television, won an award - honorable mention Grand Prix.
ELKO EP Company provides the possibility for students in technical fields to do their thesis.
In 2012, the company ELKO EP became the number one company in Zlín Region and in the national finals, we won second place.

Our range of products is divided into three product lines - relay (classical modular devices), RF Control (wireless), iNELS BUS system (Bus System). Each product line has its own technical catalogue, where you can find complete information on individual products.

Product Lines

RELAYS - Modular electronic devices **www.elkoep.com**
A wide range of electronic modular devices, which brings new possibilities to home and office control, monitoring and security, as well as to industrial process control: time relays, installation contactors, staircase automatic switches, time switch clocks, dimmers, thermostats, power supplies units, control and signalling devices, GSM gates, etc.

iNELS BUS SYSTEM - Intelligent electro-installation system **www.inels.com**
iNELS will transform your house into a timeless intelligent household. It will take charge of heating and air-conditioning regulation, lighting control and switching home appliances, while also providing perfect security for your home. Enjoy controlling your entire house via a TV screen thanks to iNELS Multimedia (iMM) or use the elegant iNELS Touch Panel (iTP).

iNELS RF Control - Wireless control **www.elkoep.com**
A unique wireless control system, which is providing you perfect controlling over your home! The RF Control system enables you to control functions such as heating, lighting, electrical appliances and window shutters, all with a single touch. No wall cutting, fast and easy installation, exclusive design of wireless wall switch buttons and other components.

AUDIO/VIDEO **www.elkoep.com**
In this group you can find products, which brings you a new dimension of control music, video and home appliances. These are not just ordinary controllers but products which can be a perfect part of your electro-installation.

LOGUS^{90} – Home switches and sockets **www.logus90.com**
We offer you exclusive switches, sockets and accessories in a standard plastic or metallic design. However, there are also charming luxury frames from purely natural materials such as genuine wood, metal, granite or hardened glass. Be special!

ETI – Electrical products **www.eti.cz**
ETI's products bring high-quality, integrated solution for low voltage protection and safety of electrical installation in buildings. We supply a wide range of low voltage fuses, molded case circuit breakers and isolators, distribution boxes and protection of photovoltaic systems.

ELKO Lighting s.r.o. **www.elkoep.com**
We supply not only LED light sources to the market, but we also bring a complex lighting solution. Our goal is to supply quality and affordable LED light sources and provide a high level of service - always to satisfy our customers!

iNELS system advantages

Advantages to classical electrical installation:

Comfort
- dimming function (gradual dim-up/dim-down, soft start, light scenes)
- control via touch-screen (built-in a wall) = complete information
- control via any remote controller (e.g. of your TV or stereo)
- voice control (Sophy unit, responds to your voice commands)
- temperature regulation according to pre-set programs – in each room individually
- possibility to control by mobile phone, computer and Internet

Automatization
- function is done automatically on the basis of set value (time, temperature, light intensity, movement of people, wind strength...)
- it is possible to execute several functions on the basis of one command or event (e.g. when it is dark - INELS rolls shutters down, switches lights on, increases room temperature and switches TV on, and many others ...)
- arrival/departure functions: after a code is entered (or a card reading) to a keyboard, system automatically sets electrical appliances according to the identified user.

Supervision
- system informs you about selected event/events by SMS text message
- anywhere you are and where you can get internet access, you can connect to your house and supervise or change its state
- integrated security system can be connected to a security agency

Security
- alarm with extended functions is a part of the system
- system is equipped by a keyboard which can be controlled by a code or by an access card
- all settings and accesses are subjects of passwords in several levels
- protection of a house in case of bad weather (shutters in strong winds or storm), unexpected events (irregularities in power supply, overload), natural disasters (sensor for flooding, smoke sensor)
- bio-installation: disconnection of unused electric circuit (e.g. socket outlets in bedroom while sleeping)
- setting ideal conditions for your children's sleep (gradual dimming off , pleasant temperature, motion monitoring = baby-sitting)
- touchable parts of sensors are supplied by a safe voltage 24V DC

Savings
- regulation of heating / cooling
- time or time-limited switching
- light regulation (possible energy savings up to 10%)
- dependant switching (e.g. when it is dark, for desired temperature etc.)
- blocking of selected appliances in case of high meter tariff
- elimination of unwillingly switched appliances (e.g. when there is no motion – light switches off)

Design
- modern design of the switches and sockets, thermostat, voice activity detectors – optional designes of Elegant or LOGUS^{90}
- variety to combine different colours also in multiframe versions
- touch panel screen – unique solution of elegant wireless home automation

Time for installation
- considerably lower thanks to bus installation (only 2 control wires)
- units are installed and later programmed

Flexibility of changes and extensions
- in future it is possible to add or change units easily
- functions can be changed by PC, also remotely through Internet

Available features for disabled people
- voice and remote control
- sound messages for blind (unit Sophy speaks pre-recorded messages)
- several actions can be done by one command
- control by computer from one spot

iNELS BUS System

10 reasons to choose the iNELS BUS System

1) Ideal solution for new buildings

2) Reduction in energy use up to 30 %

3) Two-wire bus

4) Electro-installation can be extended

5) There is a possibility to change the way of controlling

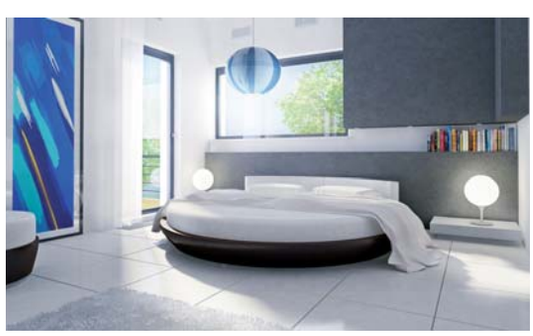
6) Remote control through Smart phone, tablets or laptop

7) Effective solution - can be combined with a security system

8) Regulation depending on the weather

9) Logical and central functions (e.g. exit button)

10) Media under control (can be also controlled via TV)



Choose the right one!

PRICE OF INSTALLATION

Control using the TV	-
Tablet	●
PC / Laptop	●
Music playback	-
Video cameras	-
Weather station	-
Door communicator	-
Controlling home appliances	-
Touch panel	●
Control via Smartphone	●
Detectors	●
Group controller	●
Heating regulation	●
Controlling blinds	●
Dimming lights	●
Controlling appliances	●

Wireless electro-installation

Most of you have already built a house or furnished an apartment. If you want to bring life into your home, we have an elegant wireless solution. As the name implies, the wireless communication is works with a range of up to 200 m (depending on the internal structure of the house/apartment and the building materials used.)

The central brain is the RF Touch unit, which can be placed anywhere within range. It's possible not only to program entire system from this unit, but also to control it. Brightly replaces several thermostats and controllers. Within the system, you have an unlimited opportunity to add any drivers and place them wherever convenient.

Energy savings:

PRICE OF INSTALLATION

Control using the TV	●
Tablet	●
PC / Laptop	●
Music playback	●
Video cameras	●
Weather station	●
Door communicator	●
Controlling home appliances	●
Touch panel	●
Control via Smartphone	●
Detectors	●
Wireless switch	●
Heating regulation	●
Controlling blinds	●
Dimming lights	●
Controlling appliances	●

Bus electro-installation

Are you building a new house? Then you should consider a bus-based solution. A bus in this sense is a data conductor that is distributed in the walls across the entire home. As opposed to a wireless solution, its advantage is range, because up to 10 x 550 m buses can be distributed in a single building.

Connection to a computer expands the scope of its available functions. This system may be expanded to include multimedia extensions and can connect third party devices (household ppliances, A/C, etc.). Control and monitoring the system can be performed via PC, the Internet, telephone, tablet, etc.

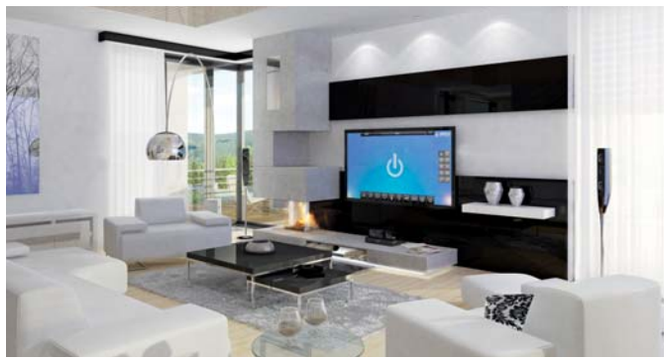
The system offers a wider range of of applicable functions. A computer is used to set the parameters.

Energy savings:

BUS electro-installation

When you build new house or decide on a complex reconstruction, the bus solutions of iNELS BUS system represents a unique solution of electro-installation. The system offers wide range of functions which bring a pleasant comfort to the users. It also allows to integrate each technology in the house and brings savings. The way of controlling can be changed according to user requirements, the electro-installation can be also extended.

Using of applications to smartphones or tablets is very popular. They provide efficient and easy way to control your home during your absence.



What are the benefits of bus controlling?

- Save energy by regulating lighting and heating
- Control of blinds, awnings, exterior or inter-window shutters
- Dimming lights, lighting scenes
- Control of appliances or electrical devices
- Control access gates, garage doors
- Logical and central functions (exit button, ...)
- Manual and automatic control mode
- Preventing undesirable opening of a window or a door
- Responding to the movement of persons (authorized and unauthorized)
- Remote monitoring via smartphone, tablet or laptop
- Possibility to control via the TV screen
- Integration of third-party devices (cameras, air conditioning, ...)

iNELS BUS System allows you to integrate and control most of technologies used in your house. It saves your money spent on energy. You don't need to wonder whether it is summer or winter. Simply set the desired the temperature in the room and your house automatically knows what to do.

The main idea of intelligent living is saving. The house is able to switch off the lighting and heating in the room at the time of your absence. In winter it pulls up the blinds, what allows the house warming by sun rays. Vice versa in the summer the blinds are pullled down earlier what reduce the switching frequence of energy-intensive air conditioning.

Flood, temperature, fire or gas leak detector sends command to close the water supply, gas, ventilation, etc.
The really useful features is also a simulation of presence when you are on vacation.

To control electro-installation you can use wall-switches, glass touch switches, touch display, smartphone, tablet or TV screen. So you can easily control whole house from one place.

Do you like to listen music, to watch movies or to view pictures? All these data can be available from anywhere in your house thanks to iNELS Multimedia. In addition you can easily turn off children's television in other room. Whole house can be controlled via TV screen.

Switching el. appliances

Light dimming

Heating regulation

Air conditioning control

Roller blind control

Detector control

RF Remote Control Pilot with OLED display

You can control your house from your sofa in the living room. You can also change the temperature in selected room or switch off lights in garage. The iNELS multimedia allows you to view your pictures from your family holiday, switch on TV in other room for your kids or listen music. Everything is stored in central storage and it is available from anywhere in your house.

Touch control unit EST

EST unit with color touch display enables you to regulate the heating, control RGB light sources and control e.g. light scenes or blinds.

Control electro-installation by Smart phone

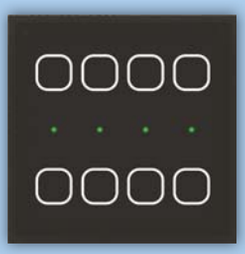
You house is all the time under control thanks to applications in your Smart phones or in tablets. Supported operating systems are Android, iOS.

House switches and sockets

LOGUS90

Modern design of the switches and sockets!

The devices can be connected directly to BUS CIB with a combination of multiple frames.



GSB3-40/60/80
Wall glass touch controllers

WSB3-20
Wall controller, 2 buttons

WSB3-40
Wall controller, 4 buttons

WMR3-11
Contactless media reader

EST3
Touch display

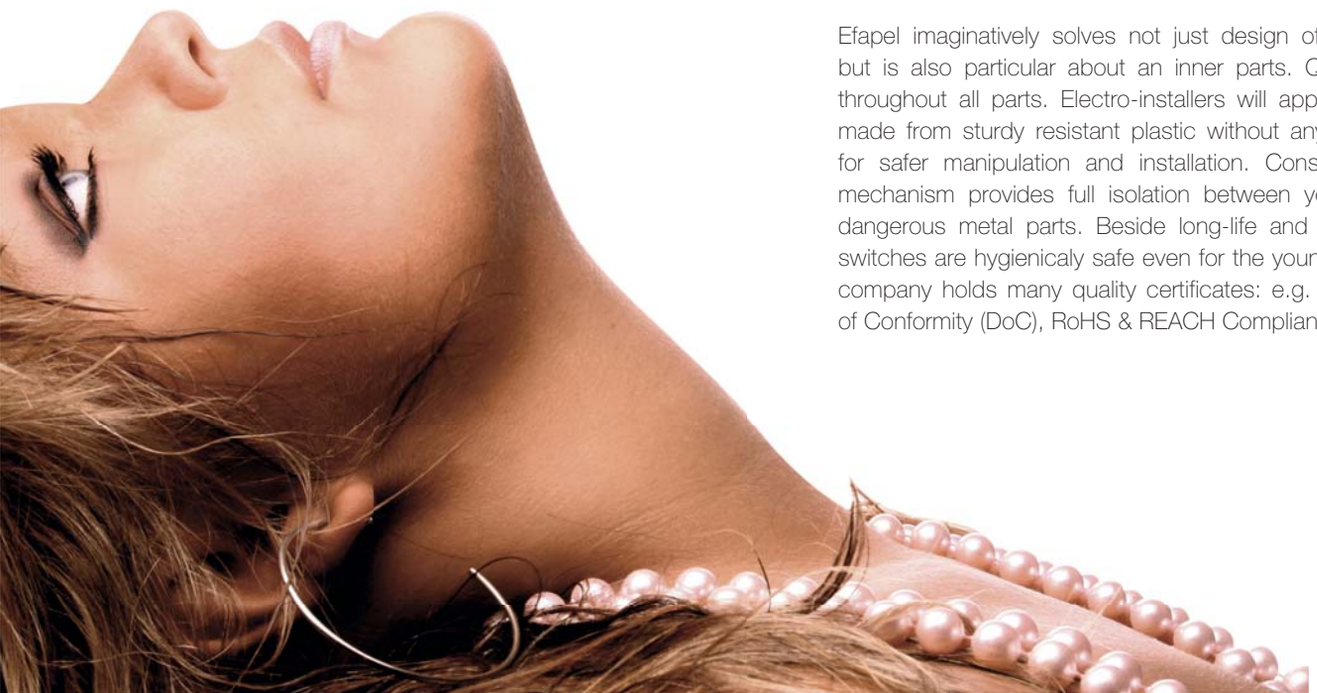
Design, which takes your breath

Luxus, individuality, beauty. With these words, we can characterize design of switches, which will catch us on the first look. Switches, socket outlets and accessories are in plastic design or resp. plastic with metalic spraying on it. But for the line LOGUS90 are characteristic a glamorous and luxury materials: metal, real wood, hardened glass or marble. From these materials are made frames, which we combine with plastic covers of wall-buttons and sockets-outlets. Covers are offered in white or ivory colour and with the spraying on it in pearl, ice, aluminium and grey colour. Resistance of colour against abrasion and scratching is strictly tested and manufacturer guarantees 10 years warranty on colour constancy by standard using. Covers can be cleaned with alcohol without any risk. A matter of interest is that the same colour is using also by Mercedes or BMW for their car spraying… With their simplicity, design purity and variety of covers and frames, the switches fit to any interior.

Standardly 24 combinations are offered. Switches are truthfully described by its strictly geometric shapes. Thanks to square symmetry of all frames there is a possibility to install them either horizontally or verticallly.

Thirty years tradition of production

ELKO EP s.r.o. is an exclusive distributor of Portugeese manufacturer Efapel for this modern line of house switches. Its quality has been prooved in humid and salty conditions as well as more than thirty years tradition of manufacturing and distributing electro-installation products over the world. EFAPEL is a highly respected company, which is speciallized in production of units for low-voltage installations, protection elements for electrical panels, cable systems, connectors, telecommunication panels and sound systems. The company was established in 1978 and now export into 48 countries worldwide.



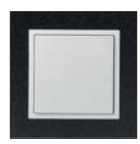
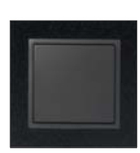
Quality and safety

Efapel imaginatively solves not just design of push-buttons, but is also particular about an inner parts. Quality is visible throughout all parts. Electro-installers will appreciate devices made from sturdy resistant plastic without any sharp edges, for safer manipulation and installation. Construction of the mechanism provides full isolation between your hands and dangerous metal parts. Beside long-life and resistance, the switches are hygienicaly safe even for the youngest ones. The company holds many quality certificates: e.g. EC Declaration of Conformity (DoC), RoHS & REACH Compliance Certificates.

House switches and sockets

LOGUS90

Řada klasických vypínačů a zásuvek LOGUS90

BASE	AQUARELLA	ANIMATO	CRYSTAL	METALLO	ARBORE	PETRA
Plastic	Metallic design	Plastic	Crystal	Metal	Wood	Stone
BR - White	GE - Ice	MM - Ivory/Ivory	CG - Crystal/Ice	TP - Titanium/Pearl	FP - Beech Wood/Pearl	 GG - Granite/Ice
MF - Ivory	PE - Pearl	RG - Yellow//Ice	CP - CRYSTAL/Pearl	IA - Inox/Aluminium	JP - Cherry Tree/Pearl	GP - Granite/Pearl
	AL - Aluminium	DG - Green/Ice	CA - Crystal/Aluminium	OP - Gold/Pearl	MS - Mahogany/Grey	GA - Granite/Aluminium
	IS - Grey	ZG - Blue/Ice	CS - Crystal/Grey	QS - Nickel/Grey	NA - Walnut Tree/Aluminium	 GS - Granite/Grey
		JG - Orange/Ice		US - Aluminium/Grey		
		VG - Red/Ice		RS - Chrome/Grey		

* All color combinations series ANIMATO can be found in the catalogue LOGUS90

Switches and sockets in design LOGUS90 for classical electro-installation

BEAUTIFUL,EXTRAORDINARY AND LUXURIOUS

Mechanism of the switch

Covers can be easily changed instead of the old switches or if you just like a different combination. Any installation of individual parts together is very easy. Device has four clips, so the frame fits right into it, other system of mounting is not need. This smart clips provide smooth operation of switch, even if the wall is not perfectly flat. Issue with not so straight surface is solved by "floating rocket". Device can be mounted into installation box with classic screws, or with more comfort spacers. Another advantage provides screwless terminals: wires provide fast comfortable connection without any need of screwing. Depth of device is just 20 mm, it means that fits into the box without any problems. There are doubled terminals on each pole, which provide multiple connection of mechanism, another terminals are not need. Holes on the front side of the cover are designed for electrical functional test of device – removal of whole device is not need. Of course Logus offering, beside a basic single pole switch, also double pole switch (two functions) or triple pole switch (three functions).

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Overview of system units

System units

CU3-01M
Basic element of the system, 2x CIB BUS, 1x EBM BUS, 1x RS232, OLED display, Ethernet 100 Mbps, 2x analog input, 4x digital inputs, 6-MODULE

CU3-02M
Basic element of the system, 2x CIB BUS, 1x EBM BUS, 1x RS232, RF control interface, OLED display, Ethernet 100 Mbps, 2x analog input, 4x digital inputs, 6-MODULE

MI3-02M, MI3-02M/iNELS2
Allows you to expand the system to two CIB (2 x 32 units), 1-MODULE

BPS3-01M, BPS3-02M
Used for impedance segregation of bus from the power supply, 1-MODULE

GSM3-01M
GSM gateway for communication iNELS system with GSM mobile phones, EBM BUS, 3-MODULE

PS3-100/iNELS
Power supply 100W, supply voltage 85-253 V AC/50-60 Hz, output voltage DC/max. current: 27.6 V/3.6 A and 12.2 V/0.35 A, 6-MODULE

Switching actuators

SA3-02M
2x changeover contacts 16A, LED indication for relay status, manual control, 1-MODULE

SA3-04M
4x changeover contacts16 A, LED indication for relay status, manual control, 3-MODULE

SA3-06M
6x changeover contacts 8 A, LED indication for relay status, manual control, 3-MODULE

SA3-012M
12x switch contacts 8 A, LED indication for relay status, manual control, 6-MODULE

SA3-01B
1x switch contacts 16 A, 1x thermo input, mounting into the installation box

SA3-02B
2x changeover contacts 8 A, 1x thermo input, mounting into the installation box

Shutter actuator

JA3-02B/DC
Actuators for control and management of blinds, shutters, awnings, mounting into the installation box

Dimming actuators

DA3-22M
Unit for dimming ESL, LED and RLC load, 2 x 400 VA, 2 control inputs, 1x thermo input, 3-MODULE

LBC3-02M
Control unit for electric ballast, 2x changeover contacts 16A, 2x analog signal 1-10 V,LED indication for relay status, 3-MODULE

EMDC-64M
INELS-DALI/DMX converter for controlling electronic ballasts DALI and DMX receivers. 3-MODULE

DCDA-33M/RGB
Dimming actuator for LED and RGB light sources controlled by varying current. Control interface DMX, DALI and CIB. 3-MODULE

Input units

IM3-140M
Input module,
14x binary inputs,
3-MODULE

IM3-20B, IM3-40B
Binary input modules, 2x/4x input, 1x thermo input, mounting into the installation box

IM3-80B
Input module,
8x binary input,
1x thermo input, mounting into the installation box

TI3-10B
Unit for connecting,
1x sensor TC, TZ, Ni 1000, Pt1000 or Pt100, mounting into the installation box

TI3-40B
Unit for connecting,
4x sensor TC, TZ, Ni 1000, Pt1000 or Pt100, mounting into the installation box

TI3-60M
Unit for connecting,
6x sensor TC, TZ, Ni 1000, Pt1000 or Pt100, 3-MODULE

Converters

ADC3-40M
Analog signal converter on the bus,
4x analog inputs,
3-MODULE

DAC3-04B
Converter from bus to signal 0 (1) -10 V,
4 channels, 1 x thermo input, assembly the installation box

DAC3-04M
Converter from bus to signal 0 (1) -10 V,
4 channels, 1 x thermo input, 3-MODULE

Applications iHC

iHC-MA
Application to control the system iNELS from phone with Android OS

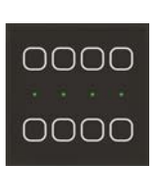
iHC-TA
Application to control the system iNELS from tablet with Android OS

iHC-MI
Application to control the system iNELS from iPhone

iHC-TI
Application to control the system iNELS from iPad

Wall units and controllers

EST3
The control unit with touch display



GSB3-40, GSB3-60, GSB3-80
Capacitive glass wall mounted controllers, 4x/6x/8x buttons, built-in temperature sensor, 2x AIN/DIN, comes in LOGUS^{90} design

WSB3-20
Two-button controller, built-in temperature sensor, 2x AIN/DIN, 1x indication LED (red/green) comes in LOGUS^{90} design

WSB3-40
Four button controller, built in temperature sensor, 2x AIN/DIN 2x indication LED (red / green) comes in LOGUS^{90} design

WMR3-11
Contactless media reader, 1 x switching contact 8 A, two-button controller, LOGUS^{90} design

IDRT3-1
Digital room thermoregulator, correcting of heating/cooling circuits +5°C/-5°C or it is possible to adjust directly desired temperature in °C

AUDIO/VIDEO

an extension of iNELS system is part of a separate catalog AUDIO / VIDEO

iMM Client
The VideoZone player enabling control of all functions via TV. Translate IP protocols of third-party devices

Connection Server
Translate IP protocols of third-party devices

iMM Audio Zone-R
The AudioZone player, 3.5mm stereo Jack audio output

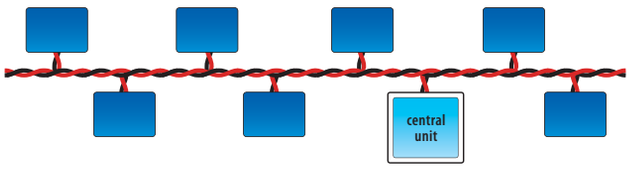
LARA
The music and internet radio player in wall button size. Integrated power amplifier 2x 10W, in LOGUS^{90} design

eLAN-IR-003
Converter Ethernet to IR code, 3 inputs, support IR codes for the frequency of 20-455 kHz

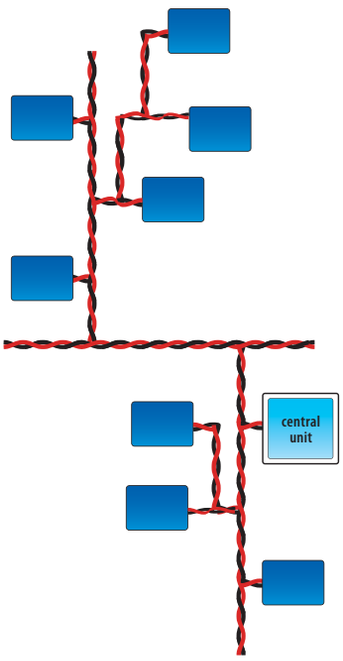
eLAN-RF-003, eLAN-RF-Wi-003
Converts commands from LAN to an RF signal to control RF actuators

Examples of CIB bus topology

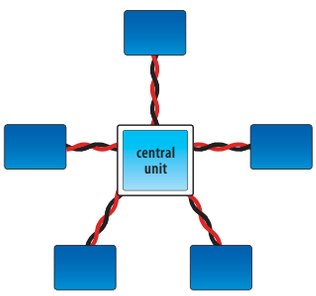
Linear structure



Tree structure



Circular structure



Product identification - explanation

SA3-04M

S	Switch
A	Actuator
3	3rd generation of iNELS
-	
0	Number of inputs
4	Number of outputs
M	Modular design

DA3-22M

D	Dimming
A	Actuator
3	3rd generation of iNELS
-	
2	Number of inputs
2	Number of outputs
M	Modular design

DAC3-04M

D	Digital
A	Analogue
C	Converter
3	3rd generation of iNELS
-	
0	Number of inputs
4	Number of outputs
M	Modular design

IM3-20B

I	Input
M	Module
3	3rd generation of iNELS
-	
2	Number of inputs
0	Number of outputs
B	Box (in a mounting box)

GSB3-80

G	Glass
S	Switch
B	Button
3	3rd generation of iNELS
-	
8	Number of inputs
0	Number of outputs

WSB3-40

W	Wall
S	Switch
B	Button
3	3rd generation of iNELS
-	
4	Number of inputs
0	Number of outputs

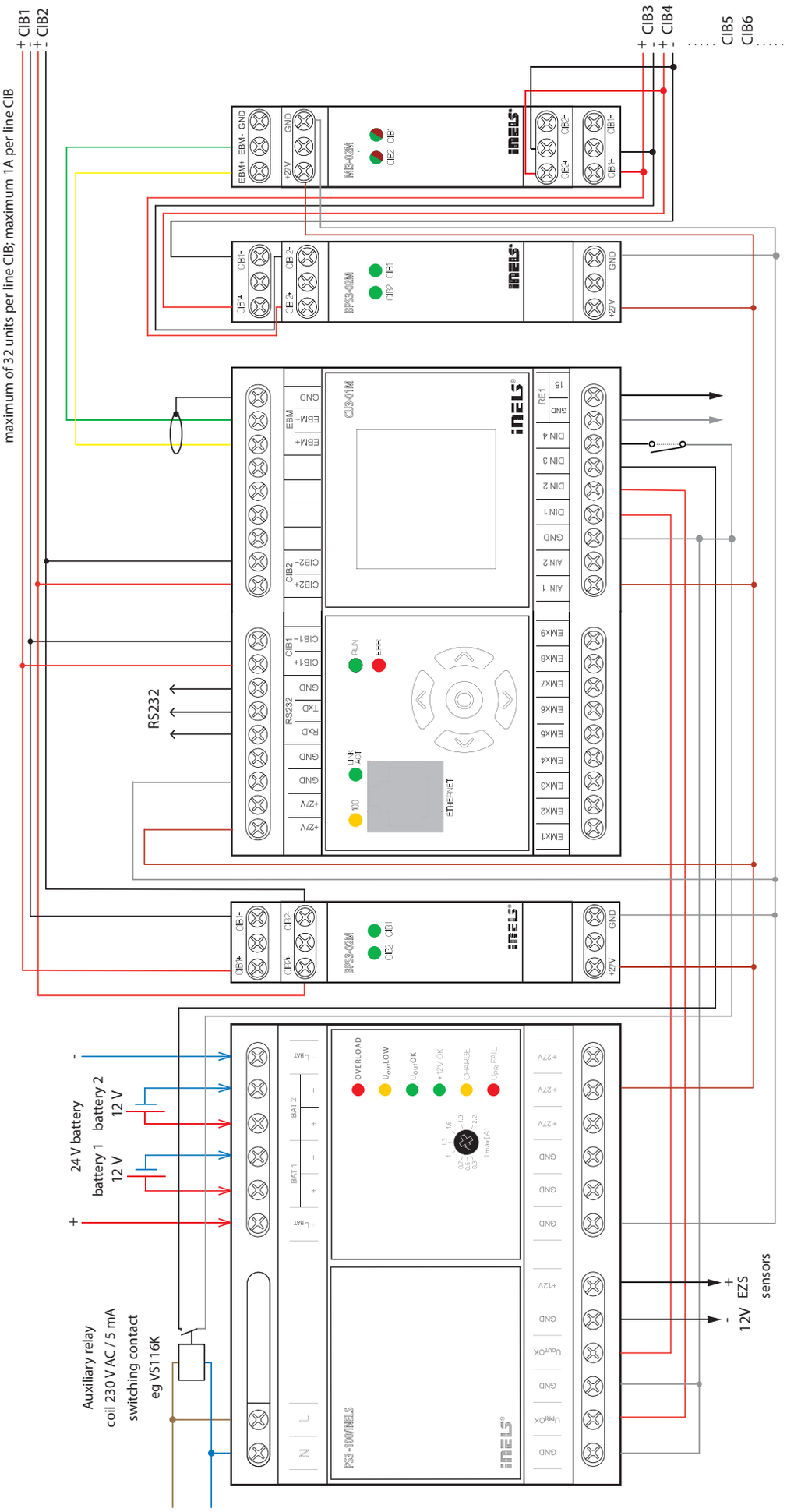
TI3-60M

T	Temperature
I	Input
3	3rd generation of iNELS
-	
6	Number of inputs
0	Number of outputs
M	Modular design

LBC3-02M

L	Lighting
B	Ballast
C	Controller
3	3rd generation of iNELS
-	
0	Number of inputs
2	Number of outputs
M	Modular design

Basic system connection with the central unit CU3-01M



CU3-01M

CU3-02M

EAN code

CU3-01M 8595188132220
CU3-02M 8595188132398

TECHNICAL PARAMETERS

CU3-01M, CU2-02M

LED indication:	green LED RUN - indicating the operating status of the unit red LED ERR - indicating major errors
OLED display:	displays the current status and settings
Type:	color OLED
Resolution:	128x128 / 1:1 aspect ratio
Visible area:	26x26 mm
Controlling:	with a routing buttons
The internal real-time clock:	accuracy: 1s/day at 23 °C

INPUTS

Inputs:	4x NO or NC to GND (-) 2 analogue inputs 0÷30
Expandable with modules:	see separate datasheets

OUTPUTS

Output:	relay output- NC/GND only for EZS
Number of connected units: (directly to the CU3-01M(02M):	max. 64 (2x32)
Expansion possibilities external bus master:	up to 576 units (CU3-01M(02M) and 8x MI3-02M)

COMMUNICATION

CIB	
Maximum number of units:	max. 32 units to one CIB line
Maximum cable length:	max. 550m (depends on power loss)
System bus EBM	
Maximum cable length:	max. 500 m
Number of connected ext. masters:	up to 8 (regards to increasing the cycle turns)
RS232 bus communication	
Maximum cable length:	max. 10 m
Ethernet	
Connector:	RJ45 on the front panel
Communication speed:	100 Mbps
Indication of the Ethernet:	green - Ethernet communication yellow - Ethernet speed 100 Mbps
The default IP address:	192.168.1.1 the set-up IP address can be displayed on the screen

RF CONTROL INTERFACE FOR CU3-02M

Communication protocol:	Oasis & RF Touch Compatible
transmitting frequency:	868 MHz
Signal transmission methods:	bidirectionally addressed message
Output for RF antenna:	SMA connector
RF antenna:	1 dB (part of package)
Free space range:	Up to 100 m

- Central units CU3-01M and CU3-02M are the brain of the iNELS system, a "mediator" between user's programming environment and controllers, units and actuators connected to the bus.
- It's possible to directly connect up to 2 lines of CIB buses in to CU3-01M and CU3-02M, and on each bus we can connect up to 32 iNELS3 units.
- The main difference between CU3-02M and CU3-01M is that CU3-02M is moreover equipped by RF module which enables communication with selected units from iNELS RF Control system.
- Central units CU-01M(02M) support also peripheral units from iNELS2 thanks to external master MI3-02M/iNELS2.
- User´s project and retentive data are stored in a non-volatile internal memory hereby data are backed up without the supply voltage. Real time clock (RTC) backup for 10 days.
- Power supply controlling system - network voltage and the status of the backup battery.
- Possibility of setting time synchronization via NTP server.
- The RJ45 Ethernet port's connector is located on the front panel of the unit, the transmission speed is 100 Mbps.
- For CU3-01M (02M) it is possible to use 4 potential-free inputs for connecting external controllers (buttons, switches, sensors, detectors, etc.) and 2 analog inputs 0-30V.
- CU3-01M (02M) comes with OLED display that shows the current status and configuration of CU3-01M (02M) central unit.
- CU3-01M (02M) can be controlled using the directional buttons on the front panel.
- CU3-01M (02M) in 6-MODULE are designed for mounting into a switchboard on the EN60715 DIN rail.

POWER SUPPLY

Supply voltage:	22-30 V DC
Ideal supply voltage:	27 V DC (from PS3-100/iNELS power supply)
Rated current:	110mA (at 27V DC)

OPERATING CONDITIONS

Working temperature:	-20 to +55 °C
Storage temperature:	-25 to +70 °C
Humidity:	max. 80%
Degree of protection:	IP 20 devices, IP 40 with cover in the switchboard
Overvoltage category:	II.
Degree of pollution:	2
Operating position:	any
installation:	to the switching board on the EN60715 DIN rail
Design:	6-MODULE
Terminal:	max. 2.5 mm^2

DIMENSIONS AND WEIGHT

Dimensions:	90 x 105 x 65 mm
Weights:	250 g

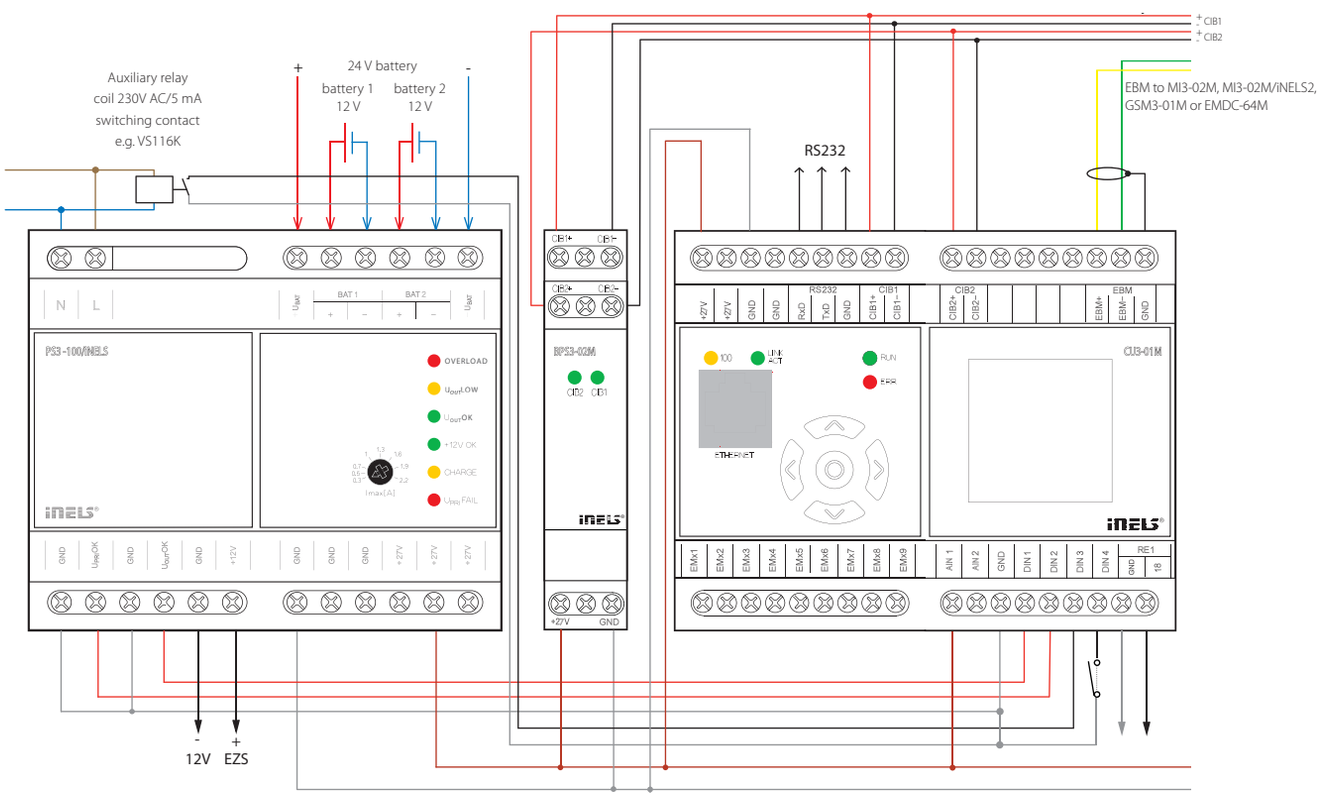
CIB Bus installation:

- Two-wired bus with an arbitrary topology (not only to be as closed circle).
- With its own modulated communications on the DC voltage supply.
- One line of CIB bus allows you to connect up max. 32 units of iNELS3, or iNELS2 if you use external master MI3-02M/iNELS2 with a current load max. 1A.
- The current load of one line is max. 1A.
- Maximum length of the bus is approximately 550 m (depends on the voltage drop).
- Recommended cable :
  - twisted shielded pair of cross sectional area 0.8 mm^2 for example: J-Y(ST)Y 2x2x0.8, YCYM 2x2x0.8.

The EBM System Bus:

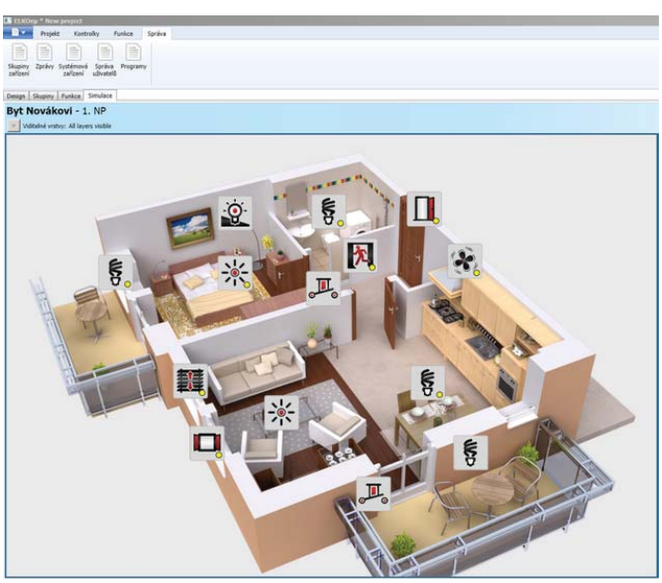
- Used to connect the CU3-01M(02M) central unit with MI3-02M external masters, MI3-02M/iNELS2, GSM communicator GSM3-01M or converter DALI/DMX EMDC-64M.
- Strictly linear topology.
- Max. length of the line of bus is 500m.
- The EBM bus has to be terminated at both ends.
- This part adapted to be inserted between terminals is included into central units packages and it is necessary to insert between terminals EBM+ and EBM-.
- Reccomended cabling:
  - UTP CAT5e and higher.

- The configurations of units and the whole system are done via Ethernet, through configuration software - INELS Designer and Manager (hereinafter IDM), which is designed for operating system MS Windows XP, W7, W8.
- CU3-01(02M) can be remotely configured and controlled through external VPN (Virtual Private Network).
- Thanks to webserver integrated in CU3-01M(02M) it is possible to control remotely the user´s functions through internet browser (PC, smartphone, tablet).
- Through CU3-01M(02M), it is possible to remotely upgrade firmware on the connected bus units.
- Supported Software:
  - Parameterization, configuration, control and visualization: iNELS Designer & Manager (IDM).
  - Promoting free programming according to IEC 61131-3 standard (in preparation).



iNELS Designer & Manager

- iNELS Designer & Manager (IDM) is a programming environment, which is designed for creating projects for iNELS BUS System's installations with the CU3-01M(02M) central unit.
- IDM allows management to address the requirements of lighting, blinds or shutters, heating, air conditioning to the overall supervision of the installation and alarm reporting.
- IDM provides the following:
  - the possibility of automatic numbering project
  - easy-shifting of units for superior masters
  - filtering units by name
  - filtering units by type (switching, dimming, etc.)
  - sorting units in the list according to their definitions (type, hardware address, unit name ...)
  - visualization of the bus in terms of HW addresses's number
  - visualization of the bus in terms of the current load
  - creating of the floors
  - creating layers in these levels (up to 5 layers)
  - visibility settings / invisibility of the individual layers
  - assignment of the floor plan or only the base color
  - possibility to zoom in on the floor plan
  - the number of units on the web server is not restricted
  - the possibility of entering multiple conditions
  - the possibility of comparing different variables
  - visualization of the connections between the elements or element groups
  - the possibility of adding custom chart icons
  - the possibility of simulation functions
  - comprehensive list of individual connections
  - the possibility of breaking down elements into logical groups
  - the possibility of using timers and counters
  - transparent management of users and their roles
  - create an unlimited number of heating programs
  - signalizing the status of units



EAN code

PS3-100/iNELS 8595188131568

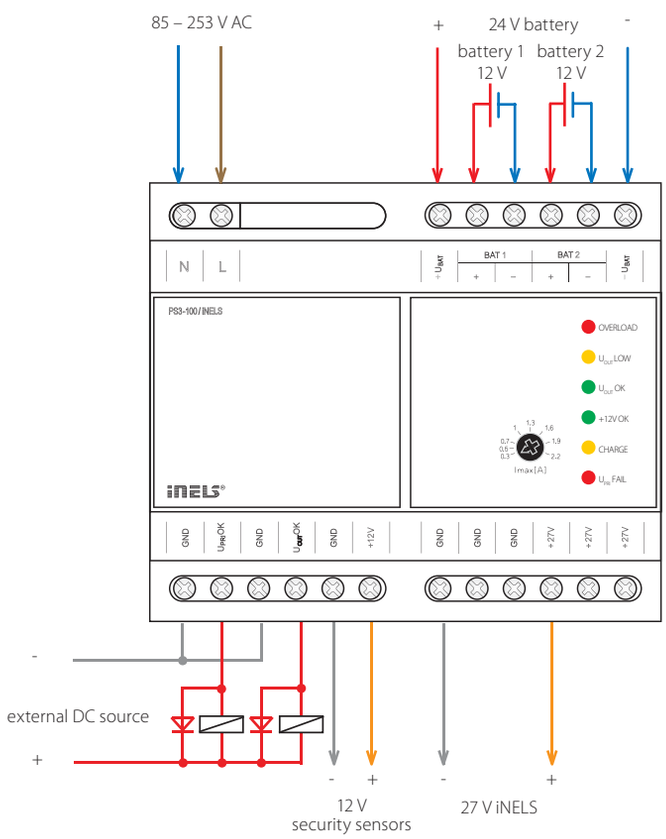
- PS3-100/iNELS is a stabilized switching power supply, with the total power of 100 W.
- Used to supply central units and external master within intelligent electro-installation iNELS.
- Through bus separators from the supply voltage BPS3-01M and BPS3-02M, it supplies supplies CIB bus lines from which iNELS peripheral units are also powered.
- Used in the instrumentation field.
- Fixed output voltage DC 27,6 V and DC 12,2 V, galvanically isolated from the mains.
- Power source of 27 V and 12 V have a common ground terminal GND.
- Electronic short circuit protection, high-capacity and thermal overload, over voltage.
- UPS functions - backup of output 24V and 12V on connected batteries.
- Recharging the batteries from 27 V source.
- Protection battery backup fuse - protection against short circuit and reverse polarity battery.
- Continuously adjustable maximum battery charging current.
- Indication of operating and fault conditions 6 LED diodes on the front panel of the power supply.
- 2 STATUS outputs with open collector for reporting operational status of the source.
- Source supplies power to the priority system iNELS, the remaining power is used for rechargeable batteries.
- When the battery is fully discharged, the battery is automatically disconnected from the load.
- PS3-100/iNELS in 6-MODULE version is designed for mounting into a switchboard, on DIN rail EN60715.

Description of device functions

- The device consists of several functional blocks.
- The basic part is 100 W power supply with 2 output voltage levels.
- Voltage of 27.6 V is used to supply the system iNELS and to recharge the batteries. Voltage of 12.2 V is for power as intrusion detectors (PZTS) or EPS. Both voltages are available without interruption during power AC power supply (UPS function) - assuming they are connected to a backup battery.
- Other parts of the source circuits are battery backup and recharge, which provide switching mode connection, charging and disconnecting the battery.
  - When in the backup mode, the battery is completely discharged, the circuit is immediately switched off to avoid deep discharge. The maximum discharge current is also guarded - when exceeded, the batteries are again disconnected.
  - If the switched source is working (oscillating), and its output voltage are greater than 26.9 V, the backup batters are charged by the current, and the maximum value is set by trimmer on the panel source.
  - When charging the yellow LED CHARGE illuminates. The source first feeds the iNELS system, and the remaining capacity of up to 100 W only recharges the battery.
  - If the output is high, this disconnects the charge (the yellow LED CHARGE switches off).
  - Upon further increasing, the load further decreases the voltage source and the load current also flows from the battery (power supply and battery power to the load together).

  Note: If the source is disconnected from the AC network (does not oscillate), and you connect batteries now, the batters remain disconnected and power outputs are without power. To activate, the source must be connected to the power supply.
- The last part of the unit are signaling circuits and status outputs. STATUS outputs (see technical data) are equipped with current limiting, so they can switch signaling components directly without external resistors (e.g. LED, optocouplers or relay coil).
- The LED signaling function is given in the table of technical parameters and illustratively described in seven case studies.

Example of connection



TECHNICAL PARAMETERS

AC INPUT

Power supply:	85 - 253 V AC/ 50 - 60 Hz
Power load (apparent / active):	max. 13 VA/ 2 W
Power consumption at max. load (apparent / active):	max. 180 VA/ 111 W
Protection:	- safety fuse T3.15 A inside the unit - electronic protection (short circuit current and thermal overload)

DC INPUT

Power supply:	- DC 24V (two 12V batteries in series)
Protection:	-safety fuse F6.3 A inside the unit - electronic protection against current overload
Terminals for connecting the battery:	- each battery separately - separately routed extreme terminals (24)
Automatic disconnect the battery:	- for the battery voltage <21 V - when exceeding discharge current 4.2 A

OUTPUTS

Output voltage 1:	27.6 V
Max. capacity:	3.6 A
Output voltage 2:	12.2 V
Max. capacity:	0.35 A
The overall efficiency of resources:	about 88%
Time delay after connecting to the AC network:	up to 1 s
Max. charging current:	adjustable from 0.2 to 2.2 A

LED SIGNALIZATION

Output voltage 27 V OK (U_{OUT} > 24 V):	green LED U_{OUT} OK
Switch. power supply does not work (does not oscillate):	flashing red LED U_{PRI} FAIL
Low output voltage (21 V < U_{OUT} < 24V):	yellow LED U_{OUT} LOW
Output voltage 12 V OK (U > 11 V):	green LED + 12 V OK
Overloading the power supply (U_{OUT} < 21 V):	red LED OVERLOAD
Charging the battery (charging current > 50mA):	yellow LED CHARGE

OUTPUT STATUS

STATUS output 1 (U_{PRI} OK):	closed, when power supply works (not blinking LED U_{PRI} FAIL)
STATUS output 2 (U_{OUT} OK):	closed, if U_{OUT} > 21V (not lit red LED OVERLOAD)
Output type:	open collector current limited
Max. connectable voltage:	50 V DC
Max. current output:	50 mA
Voltage drop on the switch max:	at 10 mA ... 140 mV at 30 mA ... 400 mV at 50 mA ... 700 mV

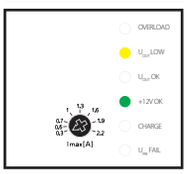
OTHER DATA

Electric strength AC input - output:	4 kV
The connection terminals:	row
Cable size (mm2):	max. 1 x 2.5, max. 2 x 1.5 (with sleeve max. 1 x 1.5)
Operating temperature:	-20 °C to +55 °C
Storage Temperature:	-30 °C to +70 °C
Working humidity:	20 to 90 % RH
Cover:	IP40 front panel, IP20 terminals
Overvoltage category:	III.
Degree of pollution:	2
Working position:	arbitrary, vertical is optimum
Installation:	on the DIN rail EN60715
Execution:	6-MODULE
Dimensions:	90 x 105 x 65 mm
Weight:	392 g
Related standards:	General: EN61204 Safety: EN61204-7 EMC: EN61204-3

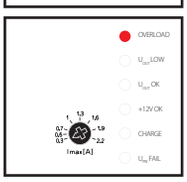
Indication LED

switching power supply works correctly
output voltage 27V is correct (U_{OUT}>24V)
output voltage 12V is correct
batteries are recharged

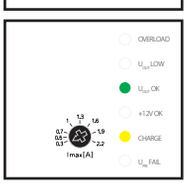
switching power supply works correctly
low output voltage 27V (21V<U_{OUT}<24V)
output voltage 12V is correct
batteries are not recharged



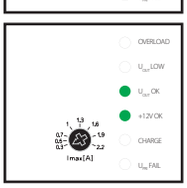
switching power supply is overload
low output voltage 27V (U_{OUT}<21V)
low output voltage 12V
batteries are not recharged



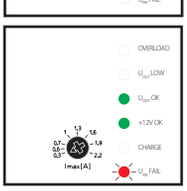
switching power supply works correctly
output voltage 27V is correct (U_{OUT}>24V)
low output voltage 12V (short-circuit, overload)
batteries are recharged



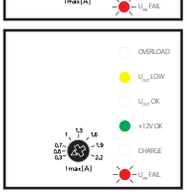
switching power supply works correctly
output voltage 27V is correct (U_{OUT}>24V)
output voltage 12V is correct
power supply is overload
batteries are not recharged



switching power supply not working correctly - UPS mode
output voltage 27V is correct (U_{OUT}>24V)
output voltage 12V is correct
batteries are not recharged



switching power supply not working correctly - UPS mode
low output voltage 27V (21V<U_{OUT}<24V)
output voltage 12V is correct
batteries are not recharged



EAN code

MI3-02M 8595188132411

MI3-02M/iNELS2 8595188150637

- External master MI3-02M provides expansion of the amount of units iNELS3 connected to the central unit CU3-01M or CU3-02M for 2 times 32 units.
- If you require the use of a central unit CU3-01 (02M) in combination with the iNELS2 units , all the units must be connected to the bus CIB lines, which are based on an external master MI3-02M/iNELS2.
- Up to 8 modules MI3-02M or MI3-02M/iNELS2 can connect to a central unit via the system bus EBM.
- In conjunction with the central unit CU3-01M(02M), it can achieve a maximum capacity of the bus iNELS of up to 576 units.
- MI3-02M and MI3-02M/iNELS2 have marked on the front panel of the unique hardware address. This address belongs to the line CIB1. IDM software then automatically sets the hardware address of the BUS line CIB2 (this address is always one value higher).
- MI3 units are supplied from PS3-100/iNELS.
- To power the lines CIB, it is necessary to use a BUS separator BPS3-02M or BPS3-01M (supply only one line). In case of using MI3-02M/iNELS2 is used BPS2-02M or BPS2-01M.
- Status signaling of each bus (operation, fault) is indicated by two-color LEDs on the front panel of the module.
- The last MI2-02M connected to the EBM bus must be closed with a 120 Ω termination resistor. This part adapted to be inserted between terminals is included into central units packages and it is necessary to insert between terminals EBM+ and EBM-.
- MI3-02M, MI3-02M/iNELS2 in 1-MODULE version is designed for mounting into a switchboard, on DIN rail EN60715.

TECHNICAL PARAMETERS

OUTPUTS

Number of connected units:	max. 64 (2x32)

COMMUNICATION

Installation BUS:	2 x CIB
Data BUS:	EBM
Unit status indication:	green LED
Bus fault indication:	red LED
Length of BUS CIB wire:	max. 2x550 m
Length of BUS EBM wire:	max. 500 m

POWER SUPPLY

Supply voltage:	22-30 V DC
Ideal supply voltage:	27 V DC
Rated current:	25 mA (at 27 V DC)

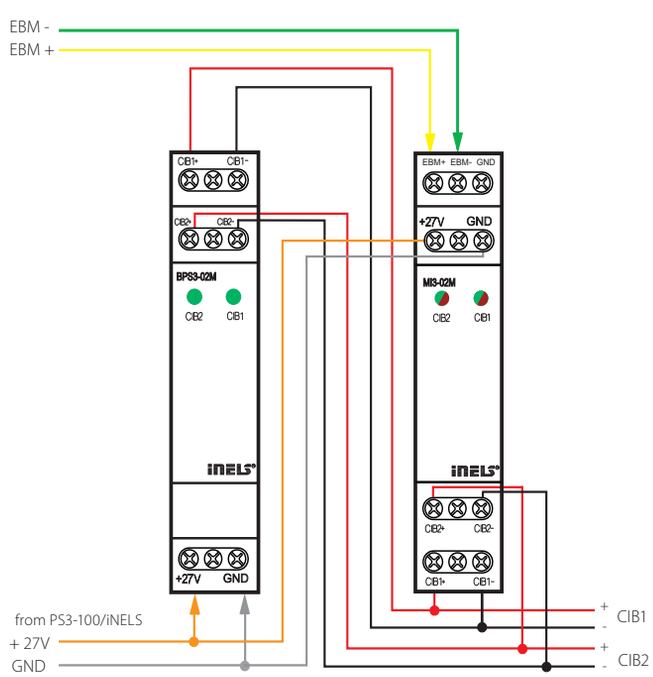
OPERATING CONDITIONS

Operating temperature:	-20 to +55 °C
Storage temperature:	-25 to +70 °C
Humidity:	max. 80 %
Protection degree:	IP20 device, IP40 mounting in the switchboard
Overvoltage category:	II.
Pollution degree:	2
Operating position:	any
Installation:	in a switchboard on DIN rail EN 60715
Design:	1-MODULE
Terminal:	max. 2.5 mm²

DIMENSIONS AND WEIGHT

Dimensions:	90 x 18 x 65 mm
Weight:	80 g

Example of connection



BPS3-01M

EAN code

BPS3-01M 8595188132442

BPS3-02M

EAN code

BPS3-02M 8595188132435

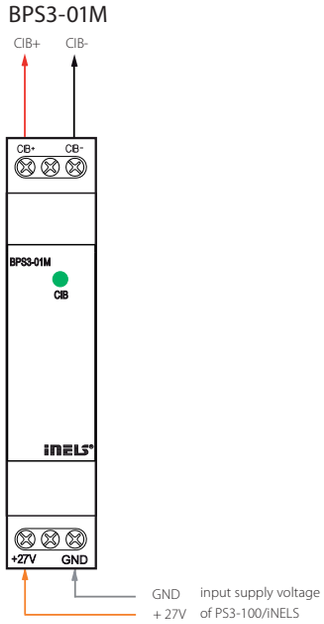
- Units BPS3-01M and BPS3-02M serve for impedance separation of CIB from supply voltage power.
- Bus separator BPS3 or BPS3-01M-02M is required for each type CU3 central unit and external master MI3-02M.
- BPS3-01M allows you to connect one bus CIB.
- BPS3-02M allows you to connect two separate CIB1 and CIB2.
- Outputs are equipped with overcurrent and overvoltage protection.
- Indication of output voltage outputs CIB LED.
- BPS3-01M and BPS3-02M in 1-MODULE version is designed for mounting into a switchboard, on DIN rail EN60715.

TECHNICAL PARAMETERS

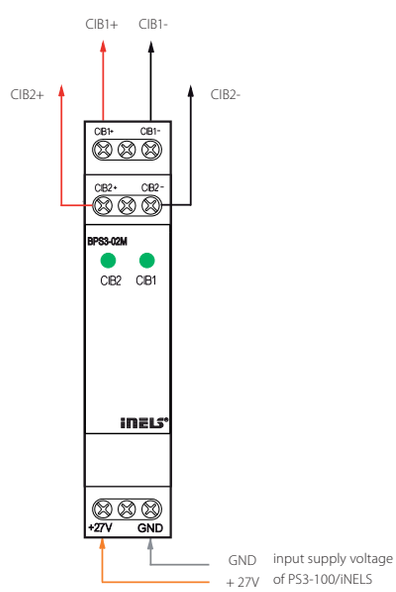
OUTPUTS	BPS3-01M	BPS3-02M
Voltage CIB:	22-30 V DC	2 x 22-30 V DC
Maximum capacity:	3A	2 x 1A
COMMUNICATION		
Installation BUS:	1x CIB	2 x CIB
POWER SUPPLY		
Supply voltage:	22-30 V DC	
Rated current:	max. 8 mA	max. 15 mA
Status indication voltage on terminals:	1 x green LED	2 x green LED
CONNECTION		
Terminals:	max. 2.5 mm^2/1.5 mm^2 with sleeve	
OPERATING CONDITIONS		
Operating temperature:	-20 to +55 °C	
Storage temperature:	-30 to +70 °C	
Protection degree:	IP20 device, IP40 mouting in to the switchboard	
Overvoltage category:	II.	
Pollution degree:	2	
Operating position:	any	
Installation:	in a switchboard on DIN rail EN 60715	
Design:	1-MODULE	
DIMENSIONS AND WEIGHT		
Dimensions:	90x17.5x64 mm	
Weight:	46 g	53 g

Example of connection

BPS3-01M



BPS3-02M



EAN code

GSM3-01M 8595188132428

External antenna AN-E 859415759012

- It serves for communication with the iNELS system via commands sent in short SMS messages from mobile phone GSM.
- Via GSM3-01M aned mobile phone, you can control the system, and the system can inform you back by sms or ringing.
- Max. capacity of GSM3-01M is 32 phone numbers, 48 outgoing and 32 incoming SMS messages. Max. length of SMS is 20 symbols.
- GSM3-01M IDM can through software-defined numbers to dial, ring 20 s and disconnected. It can also perform actions on incoming calls.
- GSM3-01M can also serve as a transmitter of SMS messages or in case of intrusion or alert to a security agency.
- Operating range is 850, 900 as well as 1800, 1900 MHz (quad-band).
- SIM card is inserted into the unit from the front panel.
- Connector Mini USB for service purposes.
- GSM3-01M is connected to the central unit CU3-01M (02M) via the system bus EBM.
- In case it involves the last unit on the system bus EBM, it is necessary to terminate the wire with a resistor with rated resistance of 120Ω. This part adapted to be inserted between terminals is included into central units packages and it is necessary to insert between terminals EBM+ and EBM-.
- The package includes is an external magnetic antenna (cable 3m, 5db gain), which is connected to the connector RSMA (F) on the front panel.
- GSM3-01M in 3-MODULE version is designed for mounting into a switchboard, on DIN rail EN60715.

TECHNICAL PARAMETERS

COMMUNICATION

Communication interface:	system bus EBM
GSM network (Quad-band) :	850/900/1800/1900 MHz
Transmitter output power:	2W for GSM 900, 1W for GSM 1800
Number of informative SMS:	max. 80 (48+32)
Number of stored numbers:	max. 32
Transmission indication:	red LED

POWER SUPPLY

Supply voltage/rated current:	27 V DC/250 mA
Suppy voltage indication:	green LED

CONNECTION

Terminals:	max. 2.5 mm^2/1.5 mm^2 with sleeve

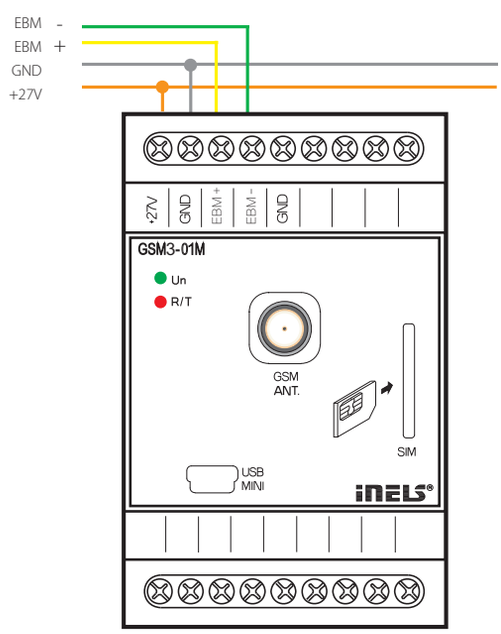
OPERATING CONDITIONS

Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	20 IP devices, 40 IP with cover in switchboard
Overvoltage category:	II.
Pollution degree:	2
Operation position :	any
Installation:	to DIN rail EN 60715
Design:	3-MODULE

DIMENSIONS AND WEIGHT

Dimensions:	90 x 52 x 65 mm
Weight:	128 g

Example of connection



EAN code

SA3-02M 8595188132374

- Actuator SA3-02M is designed for switching two various appliance and loads with potentialless contact.
- SA3-02M is a switching actuator containing 2 independent relays with changeover potentialless contacts.
- Maximum load per contact is 16 A/4000 VA/AC1.
- Each of the two output contacts are individually controllable and addressable.
- Both relays are individually decorated input terminals, and therefore can switch various independent potentials.
- The actuator is designed for switching up to two various appliances and loads relay output (potentialless contact).
- Thanks to changeover contacts, it can be used to control one 230V power (such as blinds, shutters or awnings) with appropriate bridging, the contacts can secure hardware blocking the possibility of simultaneous switching of the phase on both outputs.
- LEDs on the front panel signal the status of each output.
- Contact status of each relay can be changed separately and manually by control buttons on the front panel.
- Switching actuators SA3 are normally supplied in the option $AgSnO_2$ contact material, they can be supplied with contact AgNi by request.
- SA3-02M in 1-MODULE version is designed for mounting into a switchboard, on DIN rail EN60715.

TECHNICAL PARAMETERS

OUTPUTS

Output:	2x switching 16 A/AC1
Switching voltage:	250 V AC1, 24 V DC
Switching load:	4000 VA/AC1, 384 W/DC
Surge current:	30 A/<3s
Insulation voltage between outputs and built-in circuits:	3.75 kV, SELV dle EN 60950
Insulation voltage between output relays RE1 and RE2:	1000 V AC
Minimal switching current:	100 mA
Switching frequency/no load:	1200 min^{-1}
Switching frequency/rated load:	6 min^{-1}
Mechanical lifetime:	3 x 10^7
Electrical lifetime AC1:	0.7 x 10^5
Outputs indication:	2x yellow LED

COMMUNICATION

Installation BUS:	CIB

POWER SUPPLY

Supply voltage/rated current:	27 V DC/50 mA, from CIB BUS
Status indication unit:	green LED RUN

CONNECTION

Terminal:	max. 2.5 mm^2/1.5 mm^2 with sleeve

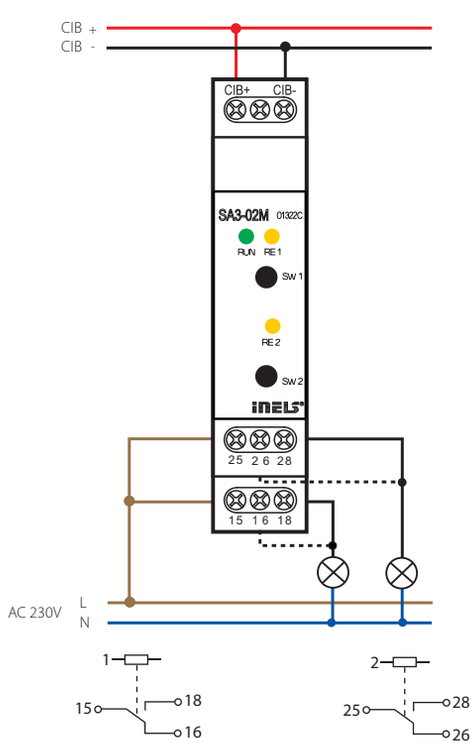
OPERATING CONDITIONS

Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP 20 device, IP 40 mounting in the switchboard
Control device purpose:	operative control device
Control device constuction:	individual control device
Automatic operation characteristic:	1.B.E
Heat and fire resistance category:	FR-0
Anti-shock category (immunity):	class 2
Rated impulse voltage:	2.5 kV
Overvoltage category:	II.
Pollution degree:	2
Operation position:	any
Installation:	switchboard on DIN rail EN 60715
Design:	1-MODUL

DIMENSIONS AND WEIGHT

Dimensions:	90 x 18 x 65 mm
Weight:	82 g

Example of connection



EAN code
SA3-04M 8595188132381

- It serves for switching of various appliances and loads with potentialless contact.
- SA3-04M is a switching actuator containing 4 independent relays with changeover potentialless contacts.
- Maximum load per contact is 16 A/4000 VA/AC1.
- Each of the four output contacts are individually controllable and addressable.
- All four relays are individually decorated input terminals, and therefore can switch various independent potentials.
- The actuator is designed for switching to four various appliances and loads relay output (potential free contact).
- Thanks to changeover contacts, it can be used to control up to two drives 230V power (such as blinds, shutters or awnings) with appropriate bridging, the contacts can secure hardware blocking the possibility of simultaneous switching of the phase on both outputs.
- LEDs on the front panel signal the status of each output.
- Contact status of each relay can be changed separately and manually by control buttons on a front panel.
- Switching actuators SA3 is normally supplied in the option $AgSnO_2$ contact material, it can be supplied with contact AgNi by request.
- SA3-04M in 3-MODULE version is designed for mounting into a switchboard, on DIN rail EN60715.

TECHNICAL PARAMETERS

OUTPUTS

Output:	4 x switching 16 A/AC1
Switching voltage:	250 V AC1, 24 V DC
Switching output:	4000 VA/AC1, 384 W/DC
Surge current:	30 A/<3s
Insulation voltage between outputs and internal circuits:	3.75 kV, SELV by EN 60950
Insulation voltage between individual relay outputs RE1 to RE4:	1000 V AC
Min. switched current:	100 mA
Switching frequency /no load:	1200 min^{-1}
Switching frequency/rated load:	6 min^{-1}
Mechanical life:	3 x 10^7
Electrical life AC1:	0.7 x 10^5
Output indication:	4x yellow LED

COMMUNICATION

Installation BUS:	CIB

POWER SUPPLY

Supply voltage/rated current:	27 V DC/70 mA, from CIB BUS
Status indication unit:	green LED RUN

CONNECTION

Terminal:	max. 2.5 mm^2/1.5 mm^2 with sleeve

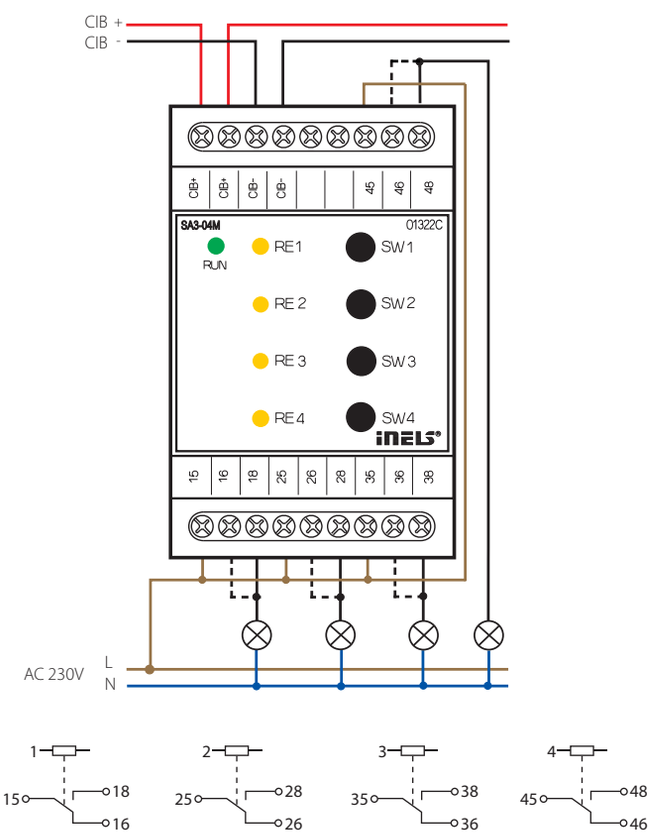
OPERATING CONDITIONS

Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP 20 device, IP 40 mounting in the switchboard
Control device purpose:	operative control device
Control device constuction:	individual control device
Automatic operation characteristic:	1.B.E
Heat and fi re resistance category:	FR-0
Anti-shock category (immunity):	class 2
Rated impulse voltage:	2.5 kV
Overvoltage category:	II.
Pollution degree:	2
Operation position:	any
Installation:	switchboard on DIN rail EN 60715
Design:	3-MODULE

DIMENSIONS AND WEIGHT

Dimensions:	90 x 52 x 65 mm
Weight:	161 g

Example of connection:



EAN code
SA3-06M 8595188132879

- The actuator is designed for switching up to six various appliances and loads with potentialless contact.
- SA3-06M is a switching actuator contains 6 independent relays with changeover potentialless contacts.
- Maximum load per contact is 8 A/2000 VA/AC1.
- Each of six output contacts are individually controllable and addressable.
- The relays are divided into two groups, the group of four relays on the bottom terminal switches the common potential, a pair of relays on top of the terminal switches second common potential.
- All relays are equipped with changeover contacts, but given the common supply terminals, four or a pair of relay, hardware does not block the ability of the current phase switching on both outputs controlling the drive 230 V (blinds, shutters). But the actuator can control these drives used on the prepared software blocking in IDM.
- The actuator is suitable for operating discontinuously controlled thermo drives in the distributor underfloor heating.
- LEDs on the front panel signal the status of each output.
- Contact status of each relay can be changed separately and manually by control buttons on a front panel.
- SA3 is normally supplied in the option $AgSnO_2$ contact material, it can be supplied with contact AgNi by request.
- SA3-06M in 3-MODULE version is designed for mounting into a switchboard/DIN rail EN60715.

TECHNICAL PARAMETERS

OUTPUTS

Output:	6 x switching 8 A/AC1
Switching voltage:	250 V AC1, 24 V DC
Switching output:	2000 VA/AC1, 192 W/DC
Surge current:	20 A/<3s
Insulation voltage between outputs and internal circuits:	3.75 kV, SELV by EN 60950
Insulation voltage between individual relay outputs RE1-RE4; RE5-RE6:	1000 V AC
Min. switched current:	10 mA/ 10V
Switching frequency /no load:	300 min^{-1}
Switching frequency/rated load:	15 min^{-1}
Mechanical life:	1 x 10^7
Electrical life AC1:	1 x 10^5
Output indication:	6x yellow LED

COMMUNICATION

Installation BUS:	CIB

POWER SUPPLY

Supply voltage/rated current:	27 V DC/60 mA, from CIB BUS
Status indication unit:	green LED RUN

CONNECTION

Terminal:	max. 2.5 mm^2/1.5 mm^2 with sleeve

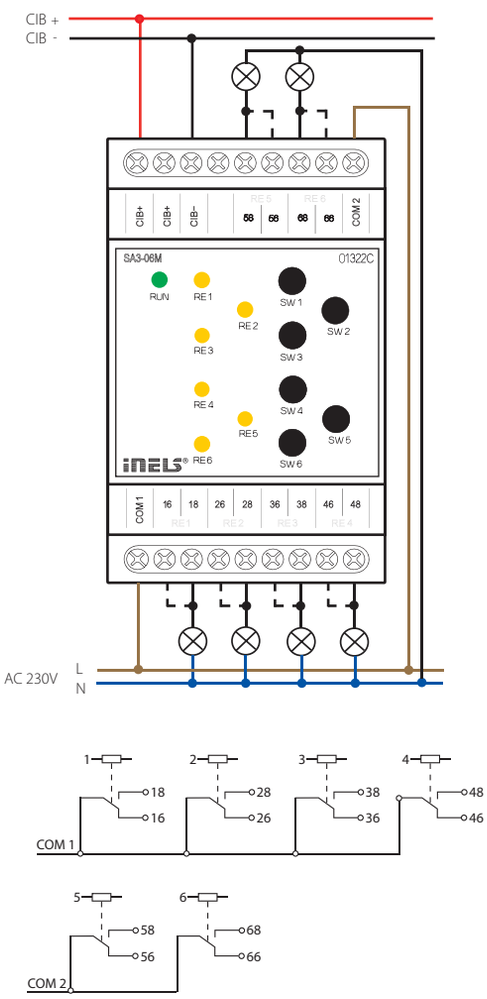
OPERATING CONDITIONS

Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP20 device, IP40 mounting in the switchboard
Control device purpose:	operative control device
Control device constuction:	individual control device
Automatic operation characteristic:	1.B.E
Heat and fi re resistance category:	FR-0
Anti-shock category (immunity):	class 2
Rated impulse voltage:	2.5 kV
Overvoltage category:	II.
Pollution degree:	2
Operation position:	any
Installation:	switchboard on DIN rail EN 60715
Design:	3-MODULE

DIMENSIONS AND WEIGHT

Dimensions:	90 x 52 x 65 mm
Weight:	256 g

Example of connection



EAN code

SA3-012M 8595188132466

- The actuator is designed for switching to twelve various appliances and loads with potentialless contact.
- SA3-12M is a switching actuator containing 12 independent relays with NO potentialless contacts, with the fact that each quaternion relay switches the same potential.
- Maximal loadability of contacts is 8 A/2000 VA/AC1.
- Each of the twelve output contacts are individually controllable and addressable.
- Actuator is powered by an AC voltage 230V.
- CIB is galvanically separated from the internal circuits of unit.
- LED on front panel signalizes state of each output.
- Contact status of each relay can be changed separately and manually by control buttons on a front panel.
- SA3-012Mis normally supplied in the option $AgSnO_2$ contact material, the order can be supplied with contact AgNi by request.
- SA3-012M in design 6-MODULE is designed to be mounted into a switchboard, onto DIN rail EN60715.

TECHNICAL PARAMETERS

OUTPUTS

Output:	12 x NO 8 A/AC1
Switched voltage:	250 V AC1, 30 V DC
Switched output:	2000 VA/AC1, 240 W/DC
Peak current:	20 A/<3s
Insulation voltage between relay outputs and internal circuits:	3.75 kV, SELV by EN 60950
Insulationg voltage between individual relay outputs RE1-RE4; RE5-RE8; RE9-RE12:	1000 V AC
Max. current by common terminal:	16 A
Minimal switched current:	10 mA / 10 V
Switching frequency without load:	300 min^{-1}
Switching frequency with rated load:	15 min^{-1}
Mechanical life:	1 x 10^7
Electrical life AC1:	1 x 10^5
Output indication:	12 x yellow LED

COMMUNICATION

Installation BUS:	CIB
Status indication unit:	green LED RUN

POWER SUPPLY

Supply voltage/rated current:	230V AC/20 mA

CONNECTION

Terminal:	max. 2.5 mm^2/1.5 mm^2 with sleeve

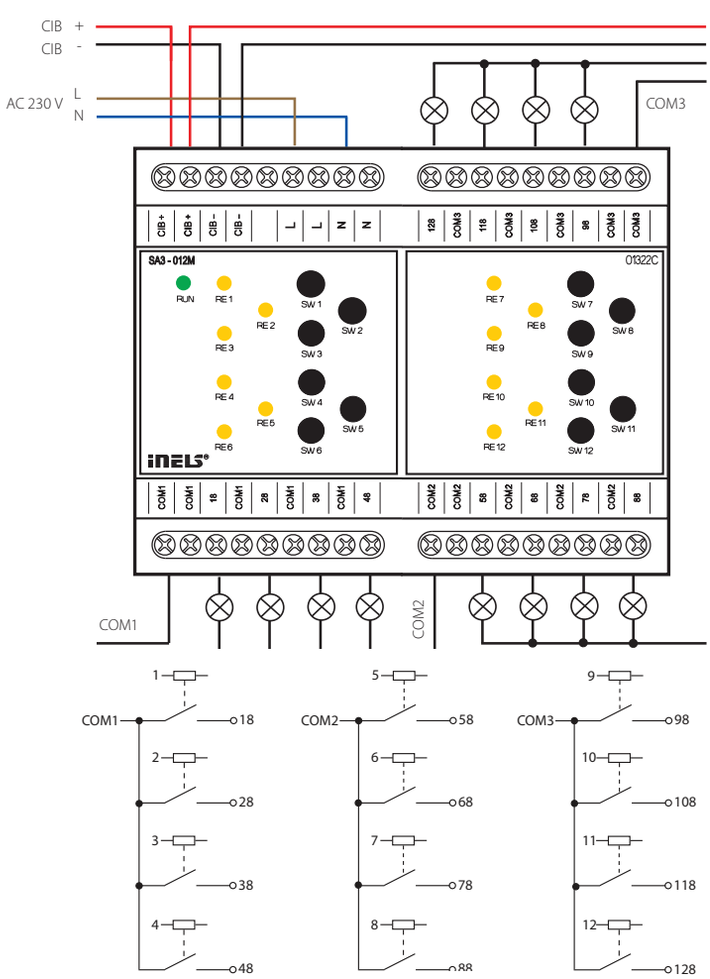
OPERATING CONDITIONS

Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP 20 device, IP 40 mounting in the switchboard
Control device purpose:	operative control device
Control device constuction:	individual control device
Automatic operation characteristic:	1.B.E
Heat and fi re resistance category:	FR-0
Anti-shock category (immunity):	class 2
Rated impulse voltage:	2.5 kV
Overvoltage category:	II.
Pollution degree:	2
Operating position:	any
Installation:	switchboard on DIN rail EN 60715
Design:	6-MODULE

DIMENSIONS AND WEIGHT

Dimensions:	90 x 105 x 65 mm
Weight:	460 g

Example of connection



SA3-01B

EAN code

SA3-01B 8595188132350

SA3-02B

EAN code

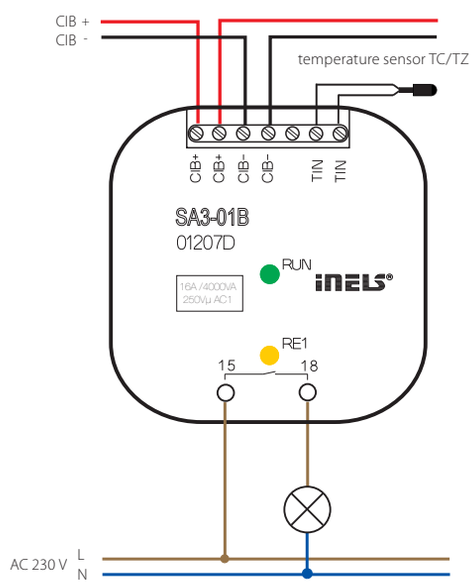
SA3-02B 8595188132367

- Actuators are designed for switching of one (SA3-01B), respectively two (SA3-02B) of various appliances and loads relay output (potentialless contact).
- SA3-01B contains 1 relay with switching potentialless contact with max. load 16A/4000 VA/AC1.
- SA3-02B contains 2 relays with switching potentialless contacts with max. load 8A/2000 VA/AC1.
- Output contacts are separately controllable and addressable.
- Both relay actuator SA3-02B are individually decorated input terminals, and therefore can switch various independent potentials.
- Thanks to changeover contacts, the SA3-02B actuator can used to control a 230V drive (such as blinds, shutters or awnings), whereas by proper bridging of contacts, it is possible to secure locking hardware options while switching on phase two outputs.
- Actuators are equipped with a temperature input for connecting an external two-wire temperature sensor TC / TZ (see accessories).
- LED on front panel signalizes state of each output.
- SA3 is normally supplied in the option $AgSnO_2$ contact material. It can be supplied with contact AgNi by request.
- SA3-01B, SA3-02B are designed for mounting into the installation box

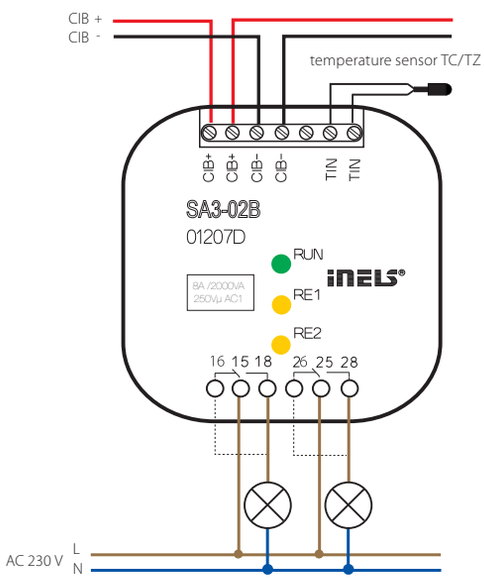
TECHNICAL PARAMETERS

INPUTS	SA3-01B	SA3-02B
Temperature measuring:	Yes, input for external thermo sensor TC, TZ	
Scope and accuracy of tem. meas.:	-20 to +100°C; 0.5°C from the range	
OUTPUTS		
Output:	1x NO 16 A/AC1	2 x NC 8 A/AC1
Switching voltage:	250 V AC1, 24 V DC	
Switched load:	4000 VA/AC1, 384 W/DC	2000 VA/AC1, 192 W/DC
Surge current:	30 A/<3s	
Insulation voltage between outputs and built-in circuits:	3.75 kV, SELV by EN 60950	
Insulation voltage between relay outputs RE1-RE2:	x	1000 V AC
Minimal switching current:	100 mA	100 mA/10 V
Switching frequency/no load:	1200 min^{-1}	300 min^{-1}
Switching frequency/rated load:	6 min^{-1}	15 min^{-1}
Mechanical lifetime:	3 x 10^7	1 x 10^7
Electrical lifetime for AC1:	0.7 x 10^5	1 x 10^5
Output indication:	yellow LED	2x yellow LED
COMMUNICATION		
Installation BUS:	CIB	
POWER SUPPLY		
Supply voltage/rated current:	27 V DC/30 mA	27 V DC/50 mA
Status indication unit:	green LED RUN	
CONNECTION		
Data terminals:	terminal, 0.5 - 1 mm^2	
Power outputs:	2x conduct. CY, Ø 2.5 mm^2	6x conduct. CY, Ø 0.75 mm^2
OPERATING CONDITIONS		
Operating temperature:	-20 to +55 °C	
Storage temperature:	-30 to +70 °C	
Protection degree:	IP 30	
Control device purpose:	operative control device	
Control device construction:	individual control device	
Characteristics of automatic operation:	1.B.E	
Heat and fi re resistance category:	FR-0	
Anti-shock category (immunity):	class 2	
Rated impulse voltage:	2.5 kV	
Overvoltage category:	II.	
Pollution degree:	2	
Operating position:	any	
Installation:	into installation box	
DIMENSIONS AND WEIGHT		
Dimensions:	49 x 49 x 21 mm	
Weight:	43 g	45 g

Example of connection SA3-01B



Example of connection SA3-02B



EAN code
JA3-02B/DC 8595188132718

TECHNICAL PARAMETERS

INPUT

Thermo input for temperature measuring:	input for external thermo sensor TC, TZ; see accessories
Range and accuracy of thermomeasuring:	-20 to +100°C / 0.5°C from the range

OUTPUTS

Insulative voltage between outputs and internal circuits:	3.75 kV, SELV by EN 60950
Rated current:	0.85A*
Peak current:	1.5 A / < 3s
Switched voltage:	12 - 24 V DC
Output indication UP, (↶) :	red (orange) LED
Output indication DOWN, (↷) :	green LED

COMMUNICATION

Installation BUS:	CIB

POWER SUPPLY

Supply voltage/rated current:	27 V DC/60mA, from CIB BUS
Status indication unit:	green LED RUN

CONNECTION

Data terminals:	terminal 0.5 - 1 mm^2
Power outputs:	4 x conductor CY 0.75 mm^2

OPERATING CONDITIONS

Operating temperature:	-20 to+50°C
Storage temperature:	-30 to+70°C
Protection degree:	IP30
Control device purpose:	operative control device
Control device construction:	individual control device
Characteristics of automatic operation:	1.B.E
Heat and fi re resistance category:	FR-0
Anti-shock category (immunity):	class 2
Rated impulse voltage:	2.5 kV
Overvoltage category:	II.
Pollution degree:	2
Operation position:	any
Installation:	into an installation box

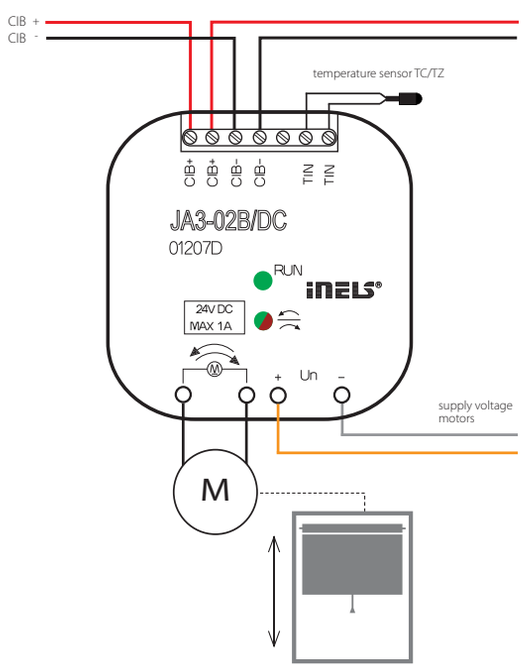
DIMENSIONS AND WEIGHT

Dimensions:	49 x 49 x 13 mm
Weight:	32 g

* Maximal operation time of outputs with rated current 0.85A is 10 minutes…after that the output heating protection activates. The lower the current, the longer duration of protection.

- JA3-02B/DC actuator serves to control blinds, shutters, garage doors, entrance gates, etc.
- Operates electrical motors, which are controlled in 2 directions and have a built-in limit switch.
- JA3-02B/DC controlled electric drives with supply voltages up to 24 V DC, where the direction of rotation of the driver is controlled by changing the voltage polarity of the motor.
- The unit is equipped with thermal and overcurrent overload protection outputs.
- Status of units is indicated by green LED RUN on the front panel:
  - with the supply voltage connected (through CIB) and the unit is not controlled by bus CIB, LED RUN shines.
  - with the supply voltage connected (through CIB) and the unit is controlled by bus CIB, LED RUN flashes.
- Status of output contacts UP/DOWN (↶↷):
  - while contact UP (↶) is switched, red LED shines (orange).
  - while contact DOWN (↷) is switched, green LED shines.
- Input for thermo sensor TC/TZ (more information about sensors - see accessories).
- JA3-02B/DC is designed for mounting into an installation box.

Example of connection



EAN code
DA3-22M 8595188132626

- DA3-22M is a universal dimming two-channel actuator used to control light intensity of dimmable energy saving lamps (ESL), LED bulbs and R, L, C with power suppl 230 V AC, but you can also use the actuator for switching appliances.
- DA3-22M integrates 2 binary inputs, which allow 230V AC voltage connection (normal wall switch contacts) These inputs are in taken in the software IDM as standard binary inputs.
- DA3-22M has two MOSFET controlled outputs 230V AC, maximum load is 2x 400 VA.
- Type of light source is set by a switch on the front panel.
- By setting the min. brightness potentiometer on the front panel, flashing is eliminated of different types of light sources.
- Buttons on the front panel, you can manually switch on or off the corresponding output.
- Electronic overcurrent and thermal protection - switch off output in case of overload short circuit and overheating.
- During installation, it is necessary to leave on each side of the actuator at least half the module space for better cooling.
- DA3-22M in 3-MODULE version is designed for mounting into a switchboard on DIN rail EN60715.

TECHNICAL PARAMETERS

INPUTS

Input:	2x inputs, switching potential L
Temperature measuring:	YES, input for external thermo sensor TC/TZ
Scope and accuracy of temp. measurement:	+15 to +35°C; 0.3°C from the range
Number of control buttons:	2x buttons, 4x potenciometers on front panel

OUTPUTS

Output:	2 contactless outputs, 2x MOSFET
Load type:	resistive, inductive, capacitive*, LED, ESL
Galvanic separation:	YES
Insulation voltage between outputs and built-in circuits:	3.75 kV, SELV according to EN 60950
Isolation voltage between particular power:	max. 500 V AC
Minimal controlled load:	10 VA
Maximal controlled load:	400 VA for each channel
Output indication ON/OFF:	2x yellow LED
Device protection:	- thermal - short-term overload - long-term overload

COMMUNICATION

Installation BUS:	CIB

POWER SUPPLY

Supply voltage/rated current:	27 V DC/10 mA, from CIB BUS
Status indication unit:	green LED RUN

CONNECTION

Terminal:	max. 2.5 mm^2/1.5 mm^2 with sleeve

OPERATING CONDITIONS

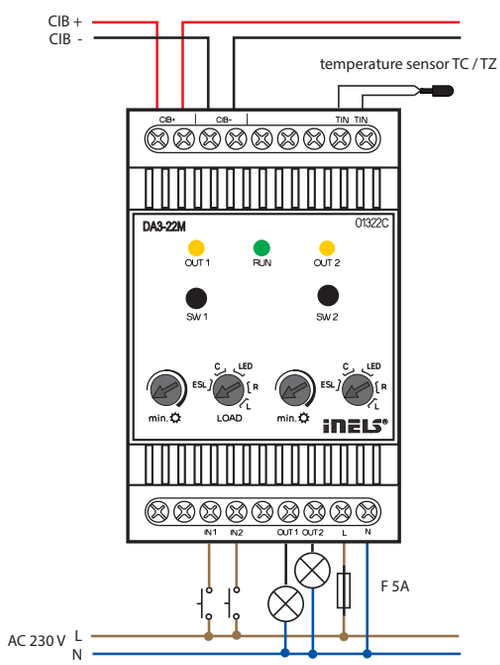
Operating temperature:	-20 to +35 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP 20 device, IP 40 mounting in the switchboard
Heat and fi re resistance category:	FR-0
Anti-shock category (immunity):	class 2
Rated impulse voltage:	2.5 kV
Overvoltage category:	II.
Pollution degree:	2
Operating position:	vertical
Installation:	switchboard on DIN rail EN 60715
Design:	3-MODULE

DIMENSIONS AND WEIGHT

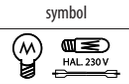
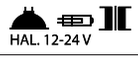
Dimensions:	90 x 52 x 65 mm
Weight:	136 g

*Attention: It is not allowed to connect loads of inductive and capacitive character, at the same time.

Example of connection



Types of connectable loads:

type of source	symbol	description
R resistive		ordinary light bulb, halogen lamp
L inductive		coiled transformer for low-voltage halogen lamps
C capacitive		electronic transformer for low-voltage halogen lamps
LED		LED lamps and LED light sources, 230 V
ESL		dimmable energy-saving fluorescent tubes

A list of dimmable light sources can be found here: **http://www.elkoep.com/solutions**

EAN code

LBC3-02M 8595188132688

- LBC3-02M is a dimming analog two-channel actuator designed for control of dimming light ballasts with signal 1-10V.
- During analog voltage output 1-10V control, relay contact automatically switches power supply to light ballast (0%=relay OFF, 1-100%=relay ON)
- LBC3-02M contains 2 independent analog voltage outputs 1-10V and their dependents 2 relays with potential-free contact.
- Maximum contacts load 16 A/4000 VA/AC1.
- Each of two-channels is separately controllable and addressable.
- LED's on front panel signals status of each channel.
- With control buttons on the front panel, is possible to change thestatus of each channel separately.
- LBC3-02M in 3-MODULE version is designed for mounting into a switchboard/ DIN rail EN60715.

TECHNICAL PARAMETERS

INPUTS

Number of control buttons:	2 buttons on the front panel

OUTPUTS

Output:	2x 1-10V/10 mA 2x changeover 16 A/AC1
Switching voltage:	250 V AC1, 24 V DC
Switching capacity:	4000 VA/AC1, 384 W/DC
Peak current:	30 A/<3s
Insulation voltage between outputs and internal circuits:	3.75 kV, SELV by EN 60950
Insulation voltage between relay outputs RE1 and RE2:	1000 V AC
Minimal switched current:	100 mA
Frequency of switching/no load:	1200 min^{-1}
Frequency of switching/rat. load:	6 min^{-1}
Mechanical life:	3 x 10^{7}
Electrical life AC1:	0.7 x 10^{5}
Output indication:	2x yellow LED

COMMUNICATION

Installation BUS:	CIB

POWER SUPPLY

Supply voltage/rated current:	27 V DC/60 mA, from CIB BUS
Status indication unit:	green LED RUN

CONNECTION

Terminal:	max. 2.5 mm^2/1.5 mm^2 with sleeve

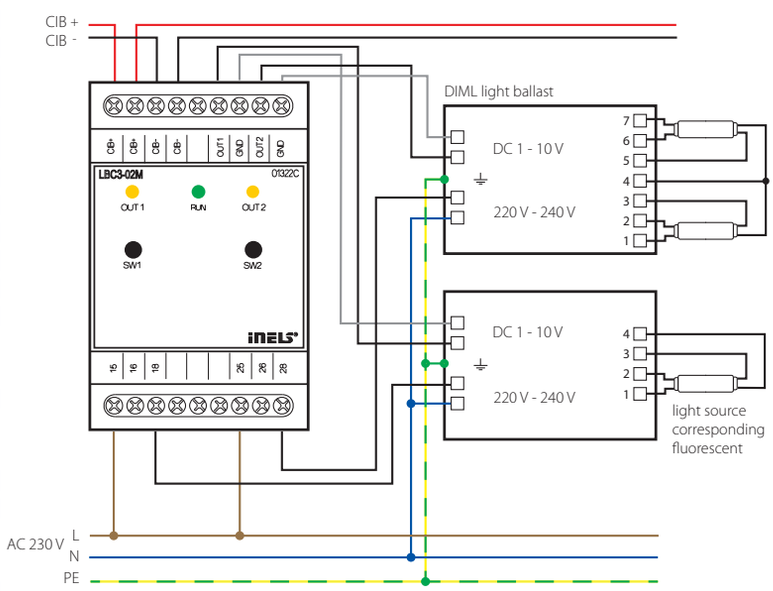
OPERATING CONDITIONS

Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP20 device, IP40 mounting in the switchboard
Purpose of control devices:	operative control devices
Control device design:	independent control device
Characteristics machine. action:	1.B.E
Category of resistance to heat and fire:	FR-0
Category (immunity):	class 2
Rated impulse voltage:	2.5 kV
Overvoltage category:	II.
Pollution degree:	2
Operating position:	any
Installation:	switchboard on DIN rail EN 60715
Design:	3-MODUL

DIMENSIONS AND WEIGHT

Dimensions:	90 x 52 x 65 mm
Weight:	129 g

Example of connection



EAN code

EMDC-64M 8595188150309

External antenna AN-E: 859415759012

Internal antenna AN-I: 8595188161862

- Unit EMDC-64M is designed to control electronic ballasts DALI and DMX receivers from the iNELS.
- EMDC-64M allows you to control up to 64 independent electronic ballasts DALI (Digital Addressable Lighting Interface) for fluorescent , LED and other lamps.
- EMDC-64M allows the connection of up to 32 receivers DMX (Digital Multiplex) in one segment. When using repeaters, it can control up to 64 devices.
- Control is possible from the iNELS BUS System via the system bus EBM or from the RF Control wireless transmitters. Selection of control (RF/EBM) and controlled (DALI/DMX) interface is done via DIP switches on the front panel of the unit.
- When used in the context of bus wiring (interface EBM) it is set using the IDM software.
- Unit EMDC - 64M is powered by 230 V AC.
- DALI bus is powered directly through the unit EMDC - 64M.
- In the event that this is the last unit on the system bus EBM, it is necessary to use a termination resistor having a nominal resistance value of 120Ω .
- DMX bus must be terminated at its end resistor with a nominal resistance value of 120Ω. Bus termination DMX -side EMDC - 64M is already implemented inside the unit.
- Two members of the nominal resistance value of 120Ω adapted for easy insertion to the terminals come with the package. To end the system bus EBM, a member is inserted between the terminals EBM+ and EBM- on last unit on the bus. To end DMX bus termination is performed on the terminals of the last receiver (slave unit) e.g. DCDA-33M/RGB.
- PRG button and MINI USB connector on the front panel are used to set up communication with the transmitter RF Control.
- EMDC-64M in 3 module is designed for panel mounting on DIN rail EN60715.

TECHNICAL PARAMETERS

POWER SUPPLY

Supply voltage:	230 V AC

COMMUNICATION

Input interface:	EBM bus (RS485 communication) iNELS RF Control
Output interface:	DALI (max. 64 ballasts) DMX (max. 32 receivers, with repeator to 64)

INDICATION

Power supply:	green LED RUN
Error:	red LED ERR
Communication:	bicolour LED DALI/DMX

OPERATING CONDITIONS

Operating temperature:	-20°C to +55°C
Storage temperature:	-30°C to +70°C
Protection degree:	IP20 device, IP40 mounitg in the switchboard
Control device purpose:	operating control device
Control device construction:	individual control device
Characteristic of automatic action:	1.B.E
Heat and fire resistance category:	FR-0
Anti-shock category (immunity):	class 2
Rated impulse voltage:	2.5 kV
Overvoltage category:	II.
Pollution degree:	2
Operating position:	any
Installation:	into switchboard on DIN rail EN60715
Implementation:	3-modulle

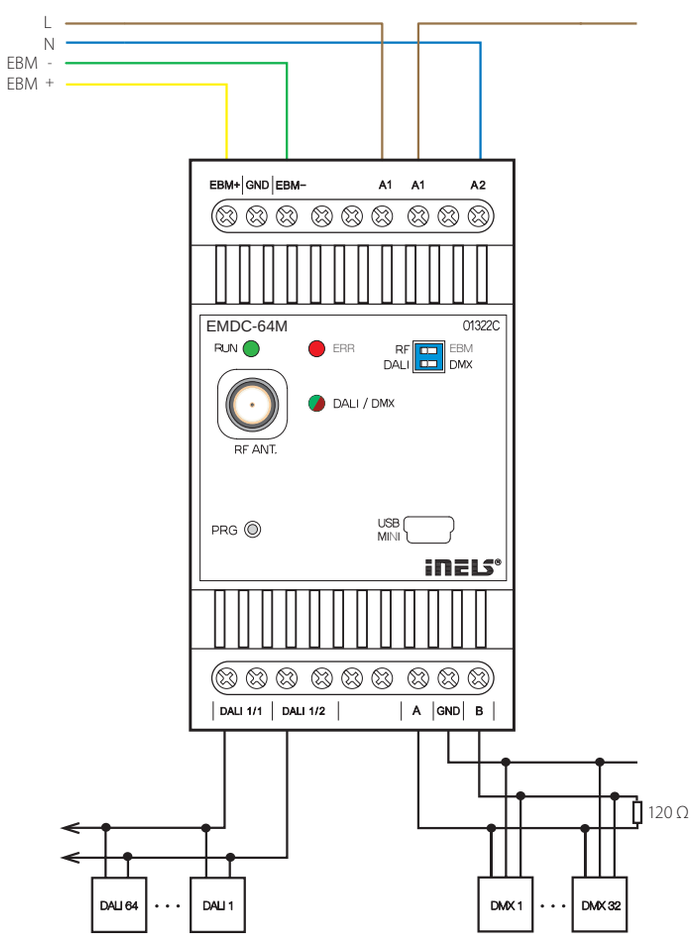
DIMENSION AND WEIGHT

Dimension:	90 x 52 x 65 mm
Weight:	130g

RF CONTROL INTERFACE

Communication protocol:	Oasis & RF Touch Compatible
Transmitting frequency:	868 MHz
Signal transmission method:	bidirectionally addressed message
Output for RF antenna:	SMA connector
RF Antenna:	1 dB (supplied)
Range in free space:	up to 100m

Example of connection



EAN code
DCDA-33M/RGB 8595188146807

- DCDA-33M/RGB dimming actuator is designed for dimming RGB and LED light sources with power supply 12-24 V DC, which are controlled by variable current.
- The actuator has three independent channels and each output channel is individually addressable and controllable.
- If desired, the channels can be associated as a single actuator for actuating the RGB source.
- DCDA-33M/RGB actuator can be controlled from the bus DALI, DMX or CIB .
- DCDA-33M/RGB can directly control from the system iNELS where the communication interface is the installation CIB.
- If ithe communication interface DALI or DMX is used, the DALI master EMDC-64M can be used.
- Setting the communication interface and addresses of actuators is performed using DIP switches:
  a) switch No. 1
  - In the upper position determines DALI or CIB
  - In the lower position determines DMX
  b) switch No. 2 (if that switch 1 is in the upper position)
  - In the upper position determines DALI
  - In the lower position determines CIB
- Using the control buttons on the front panel, you can manually control the output.
- The input circuits of communication interfaces are optically isolated from the supply voltage connected lamp unit, and is therefore resistant to electromagnetic interference.
- DCDA-33M/RGB in 3-module is designed for panel mounting on DIN rail EN60715.

TECHNICAL PARAMETERS

POWER SUPPLY

Supply terminals:	Un+, GND
Supply voltage:	12-24V DC stabilized
Consuption:	min. 0.8W max. 48W
Supply voltage tolerance:	+10 / -10%

OUTPUTS

Dimming load:	LED 12-24V DC with common cathode / RGB LED 12-24V DC with common cathode
Number of channels:	3
Rated current:	0 - 2A
Output power:	3 x 40W
Output voltage:	0 - 50V
Switching voltage:	Un

CONTROL

DALI:	1200bit/s, 250 mA
CIB:	compatible with iNELS3, consumption < 2mA
DMX:	250 kbit/s, 512 CH

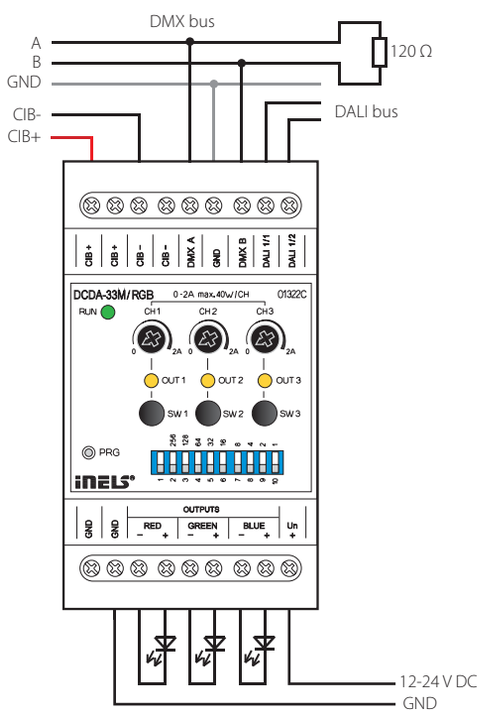
OPERATING CONDITIONS

Operating temperature:	-20°C to +55°C
Storage temperature:	-30°C to +70°C
Protection degree:	IP20 device, IP40 mounitg in the switchboard
Overvoltage category:	II.
Pollution degree:	2
Operating position:	any
Installation:	into switchboard on DIN rail EN60715
Implementation:	3-modulle

DIMENSION AND WEIGHT

Dimension:	90 x 52 x 65 mm
Weight:	135g

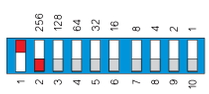
Example of connection



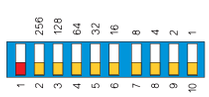
Setting the DIP switches

Setting the DALI communication interface - Switch 1 and 2.
Setting address - Switch 5-10.

Setting the CIB communication interface - Switch 1 and 2.
Address is not settable, is given HW address.



Setting the DMX communication interface - Switch 1.
Setting address - Switch 2-10.



EAN code
RFDA-73M/RGB 8595188146814
External antenna AN-E 859415759012
Internal antenna AN-I 8595188161862

- Used to dim LEDs, an LED strip and RGB LED strip with power supply 12-24V DC, control is performed with RF Control wireless transmitters or signal 0-10V/ 1-10V, or iNELS DAC converter.
- The function (FUNC) selection switch enables setting of colored light scenes. Upon switching off , the set level is stored in the memory, and when switched back on, it returns to the most recently set value.
- The load for individual channels is 3x5A, which in practice enables dimming of approx. 60W = an 8m RGB LED strips.
- The supply voltage to the equipment and the LED strip must be the same. If the RFDA-73M/RGB is supplied by 12V DC, LED strip / source should also be supplied by 12V DC. The same applies for a supply voltage of 24V DC
- Programming is performed by the PROG button located on the front panel of the device supplied with internal antenna SMA (M)
- Optional accessories: external antenna AN-E

TECHNICAL PARAMETERS

OUTPUTS

Dimmed load:	LED strip 12V,24V with common anode; RGB LED strips 12V, 24V with common anode
Number of channels:	3
Rated current:	3x5 A
Peak current:	3x10 A
Switching voltage:	Un

CONTROLLING

RF by command from the transmitter:	868 MHz
Ext. signal:	0-10 V, 1-10V
Ext. signal:	1-10 V
Range in open space:	up to 160 m
Load capacity of output +10V:	10 mA

POWER SUPPLY

Supply terminals:	Un+, GND
Supply voltage:	12-24 V DC stabilized
Maximum power without load:	0.8 W

CONNECTION

Terminal:	max 1x2.5, max 2x1.5/ with sleeve max. 1x2.5

OPERATING CONDITIONS

Operating temperature:	-20 to + 50 °C
Storing temperature:	-30 to + 70 °C
Pollution degree:	2
Operating position:	any
Protection:	IP20 device, IP40 mounting in the switchboard
Installation:	into a switchboard rail to DIN EN 60715
Design:	3-MODULE

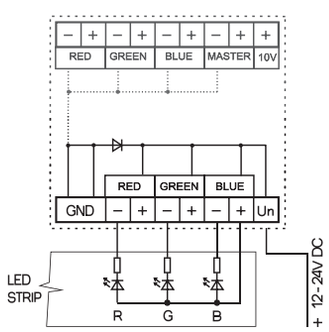
DIMENSIONS AND WEIGHT

Dimensions:	90 x 52 x 65 mm
Weight:	130 g

CONNECTION

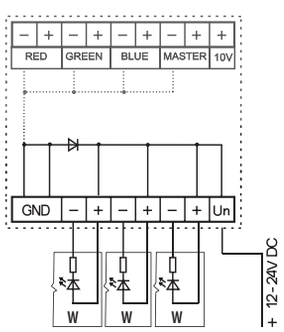
Output variations

RF RGB
RF COLOR



RGB strip

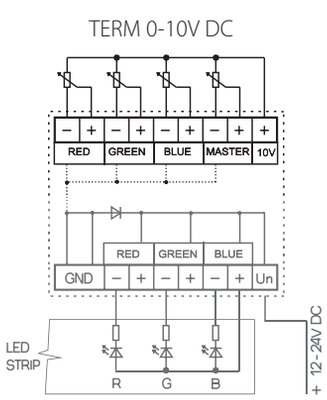
RF SINGLE



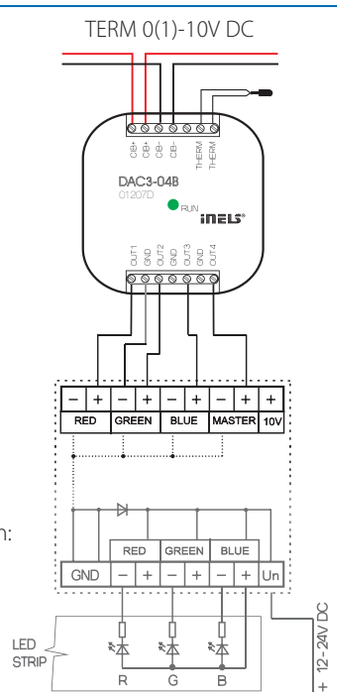
Single LED

Control options

TERM 0-10V DC



TERM 0(1)-10V DC

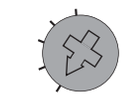


External control of iNELS Bus System:
- outputs 0-10 V or 1-10 V
- e.g. DAC3-04B or DAC3-04M.

RF RGB

RF RGB mode for controlling RGB LED strips.
In the RF RGB programming mode, colors are automatically assigned to individual transmitter buttons.
Note: It is only possible to use this function for RFWB-40/G, RF KEY and RFIM-40B.

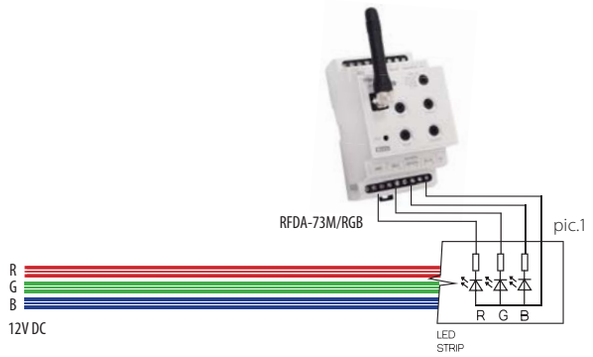
LEGEND
Buttons:
R - red
G - green
B - blue
M - master setting of overall scene brightness



RFWB-40/G

RF Pilot

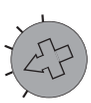
RF KEY



RF COLOR

RF COLOR mode for controling RBG LED strips, where you can choose the color for individual transmitter buttons. A long press of the button starts the color search mode. After releasing the button, the current color is set for the given button.
Note: It is only possible to use this function for RFWB-40/G, RF KEY and RFIM-40B.

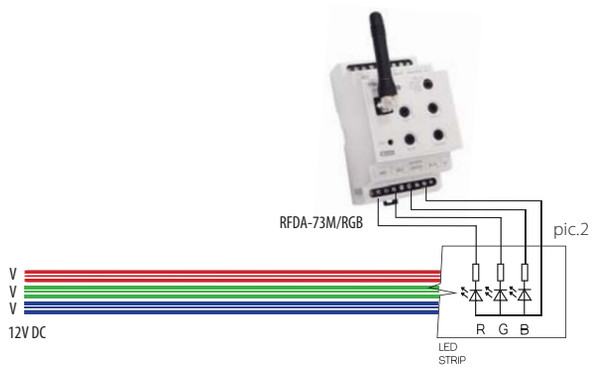
LEGEND
Buttons:
V - free selection of color
V - free selection of color
V - free selection of color
M - master setting of overall scene brightness



RFWB-40/G

RF Pilot

RF KEY



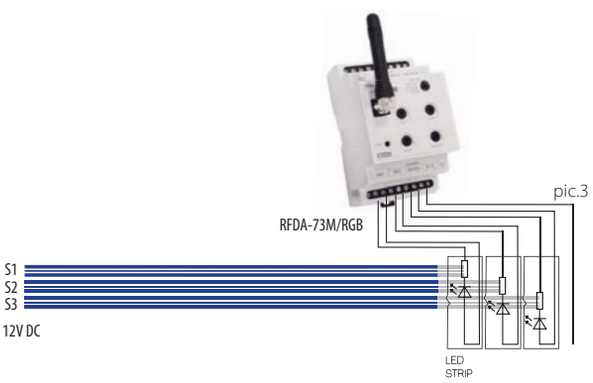
RF WHITE

RF WHITE mode
This works in a mode where it acts like three independent dimmers for 12-24V. Each channel can be programmed independently of one another and has its own address.
Dimming functions are identical to the unit RFDA-71B.

RFWB-40/G

RF Pilot

RF KEY

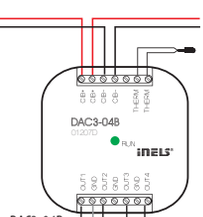


TERM 0-10V a TERM 1-10V

MODES TERM 0 -10V AND TERM 1-10V.

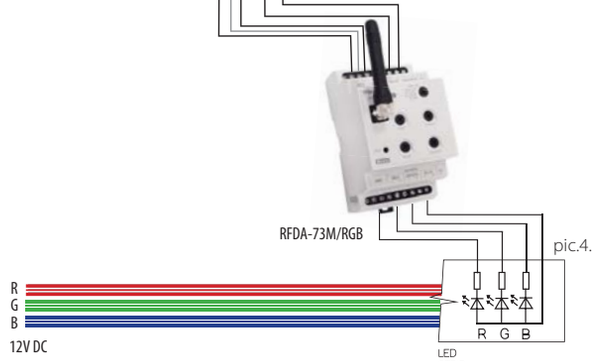
Inputs 0 - 10V and 1 -10V serves for controlling iNELS with the help of DAC3-04M or DAC3-04B. This means it's possible to combine and control LED strips via iNELS.

EST - 3



TERM 1-10V
TERM 0-10V

RF Touch



IM3-20B

EAN code
IM3-20B 8595188132305

IM3-40B

EAN code
IM3-40B 8595188132312

IM3-80B

EAN code
IM3-80B 8595188132329

- Binary input units IM3-20B, IM3-40B and IM3-80B are used for connection of 2, 4 or 8 devices with potential-less contacts (switches, buttons, switches of other design, PIR sensors, fire and gas detectors, etc.)
- Part of the inputs can be used as a balanced for alarm detectors:
  IM3-20B – inputs IN1, IN2
  IM3-40B – inputs IN1, IN2
  IM3-80B – inputs IN1 – IN5
- Contacts of external devices connected to the inputs of the unit can be NO or NC - Input parameters are configured in the software IDM.
- The units generate a supply voltage of 12V DC/75 mA for powering external intrusion detectors, so they can power PIR detectors, fire and gas detectors.
- Active use 12V DC output for powering detectors increases the nominal consumption of units from CIB (see technical data).
- The units can be used for counting pulses of energy meters with pulse output.
- The units are equipped with a temperature input for connecting an external two-wire temperature sensor TC/TZ (see accessories).
- IM3-20B, IM3-40B, IM3-80B in case type B are designed for mounting into a wiring box.

TECHNICAL PARAMETERS

INPUTS

Input IM3-20B:	2x NO or NC against GND(-) IN1, IN2 are balanced inputs
Input IM3-40B:	4x NO or NC against GND(-) IN1, IN2 are balanced inputs
Input IM3-80B:	8x NO or NC against GND(-) IN1 - IN5 are balanced inputs
Temperature measuring:	Yes, input for external thermo sensor TC/TZ
Range /accuracy of thermomeasuring:	-20 to +100°C / 0.5°C from the range

OUTPUTS

Output voltage / current:	12 V DC/75 mA, for supplying EZS sensors

COMMUNICATION

Installation BUS:	CIB
Status indication unit:	green LED RUN

POWER SUPPLY

Supply voltage/rated current:	27 V DC/20 mA, from CIB BUS
Rated current of IM3-20B and IM3-40B for full load on output 12 V DC:	60 mA
Rated current of unit for full load on output 12 V DC of IM2-80B:	100 mA

CONNECTION

Terminal:	0.5 - 1 mm^2
INPUTS IM2-20B:	4x conductors CY, profile 0.75mm^2, length 90mm
INPUTS IM2-40B:	6x conductors CY, profile 0.75mm^2, length 90mm

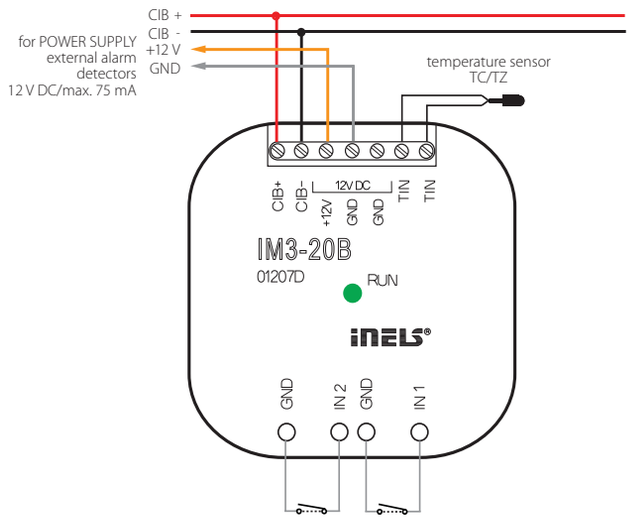
OPERATING CONDITIONS

Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP 30
Overvoltage category:	II.
Pollution degree:	2
Operating position:	any
Installation:	into installation box

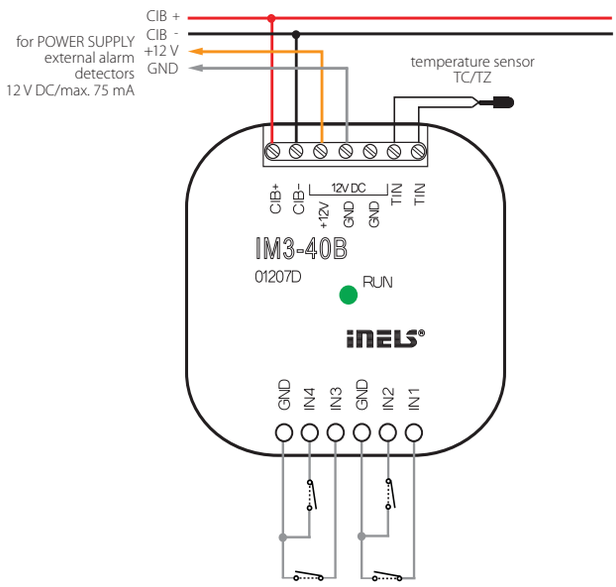
DIMENSIONS AND WEIGHT

Dimensions:	49 x 49 x 13 mm
Weight:	IM3-20B - 30 g, IM3- 40B - 32 g, IM3-80B - 24g

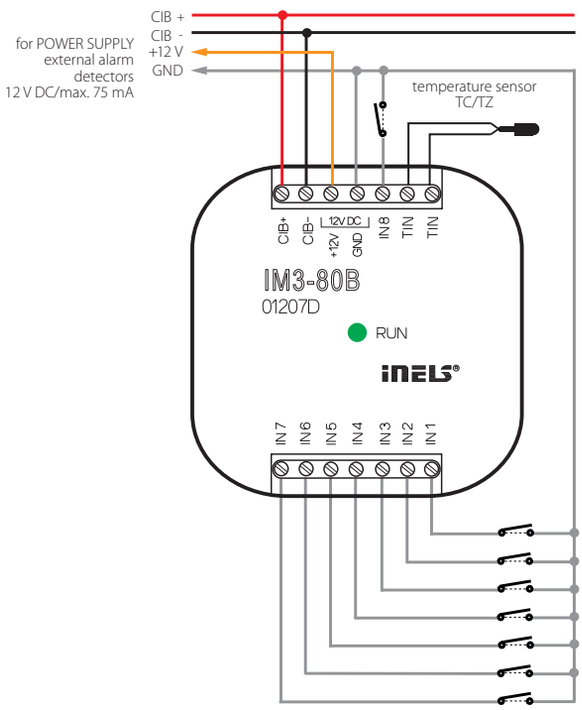
Example of connection IM3-20B



Example of connection IM3-40B

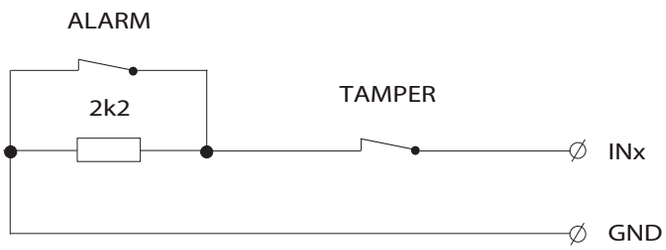


Example of connection IM3-80B

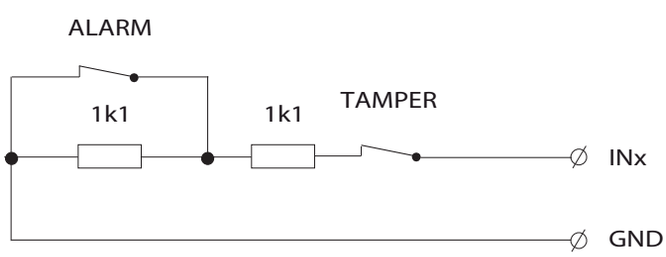


Balanced input

Simple:



Double:



EAN code

IM3-140M 8595188132459

- Binary input unit IM3-140M is designed to connect up to 14 devices with potentialless contact (such as switches, buttons of other designs, fire and glass detectors and others).
- Inputs IN1 - IN7 can be balanced.
- Contacts of external devices connected to the inputs of the drive can be NO or NC - Input parameters are configured in the software IDM.
- The unit generates a supply voltage of 12V DC/150 mA for powering external detectors, so it can power PIR detectors, fire and gas detectors.
- Active use 12V DC output for powering detectors increases the nominal consumption units from CIB (see technical data).
- The unit can be used for counting pulses of energy meters with pulse output.
- IM3-140M in 3 module is designed for switchboard mounting on DIN rail EN60715.

TECHNICAL PARAMETERS

INPUTS

Input:	14x NO or NC against GND (-) IN1 - IN7 -are balanced inputs

OUTPUTS

Output (power supply 12V for sensors):	12 V DC/150 mA

COMMUNICATION

Installation BUS:	CIB
Data transfer indication:	yellow LED

POWER SUPPLY

Supply voltage/rated current:	27 V DC/25 mA, from CIB BUS
Rated current for full load on output 12 V DC:	100 mA

CONNECTION

Terminal:	max. 2.5 mm²/1.5 mm² with sleeve

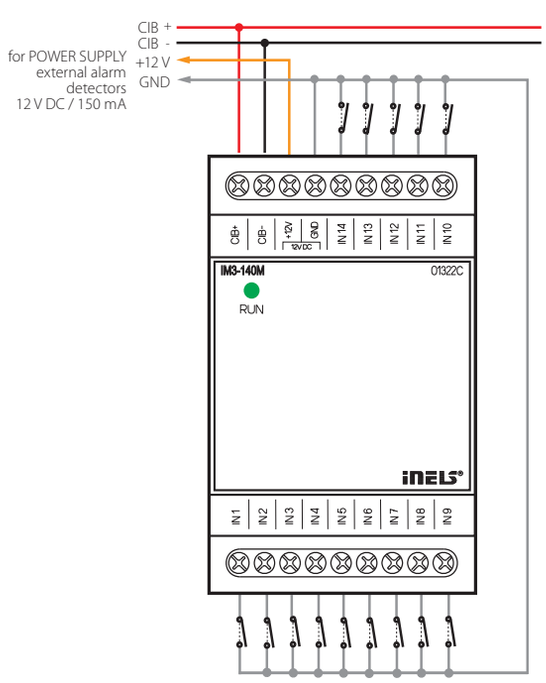
OPERATING CONDITIONS

Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP 20 device, IP 40 mounting in the switchboard
Overvoltage category:	II.
Pollution degree:	2
Operating position:	any
Installation:	into a switchboard rail to DIN EN 60715
Design:	3-MODULE

DIMENSIONS AND WEIGHT

Dimensions:	90 x 52 x 65 mm
Weight:	102 g

Example of connection



TI3-10B

EAN code

TI3-10B 8595188132886

TI3-40B

EAN code

TI3-40B 8595188132695

- These units are designed for connection of one (TI3-10B) to four (TI3-40B) external temperature sensors.
- Units range TI3 support the connection of the following temperature sensors:
  - TC / TZ - 2-wire connections
  - Ni1000, Pt1000, Pt100 - 2-wire and 3-wire.
- Used in when necessary to take temperatures from different places (for example large floor heating – diagonal layout of sensors, floor/space, indoor/outdoor temperature, technological device – boiler, solar heating etc.)
- Status of units indicated by green RUN LED on the front panel:
  - If the supply voltage is connected (units are powered via the bus CIB), but there is no communication with the master, RUN LED is lit continuously.
  - If the supply voltage is connected and the unit communicates via standard CIB, RUN LED flashes.
- TI3-10B-40B in TI3 version B is designed for mounting into an installation box.

TECHNICAL PARAMETERS

INPUT

Temperature input for temperature measuring:	1x/4xinputs for external thermo sensor TC, TZ, Ni1000, Pt1000, Pt100, see accessories
Emperature measurement range:	by type of sensor, prob from -30°C to 250°C
Converter resolution:	14 bit

COMMUNICATION

Installation BUS:	CIB
Status indication unit:	green LED RUN

POWER SUPPLY

Supply voltage/rated current:	27 V DC/25 mA, from CIB BUS

CONNECTION

Terminal:	0.5 mm^2 - 1 mm^2

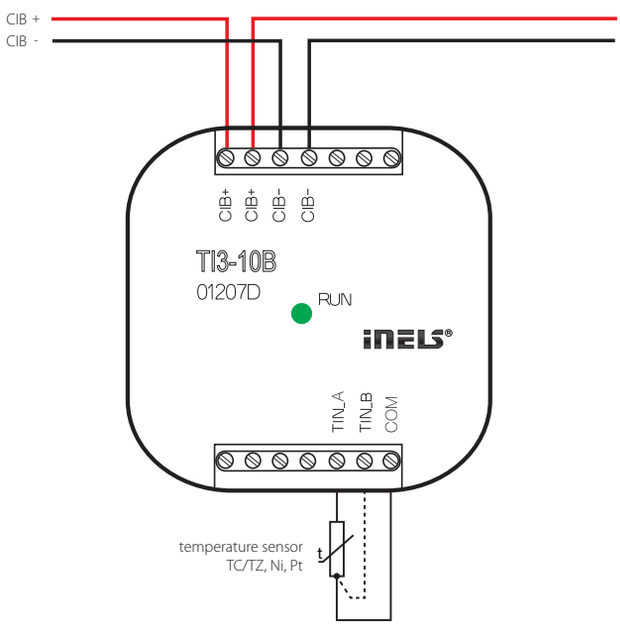
OPERATING CONDITIONS

Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP 30
Overvoltage category:	II.
Pollution degree:	2
Operating position:	any
Installation:	into installation box

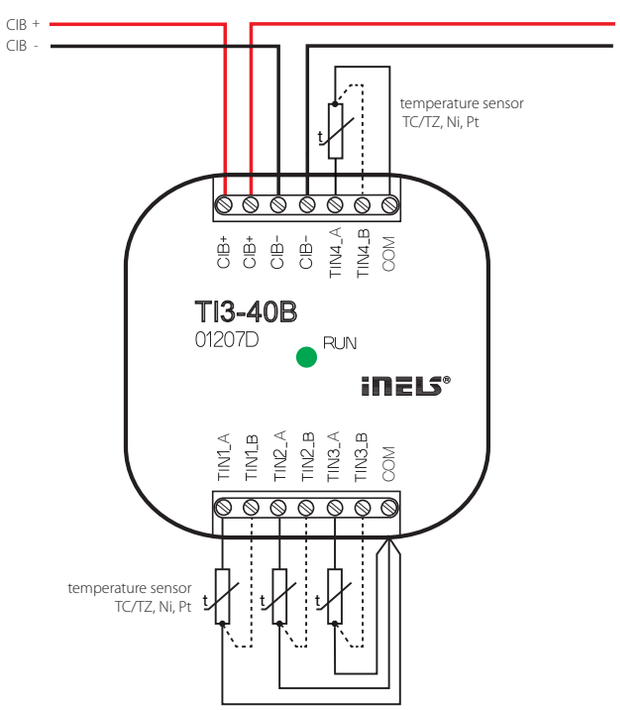
DIMENSIONS AND WEIGHT

Dimensions:	49 x 49 x 13 mm
Weight:	TI3-10B (22 g), TI3-40B (24 g)

Example of connection TI3-10B



Example of connection TI3-40B



EAN code

TI3-60M 8595188132893

- Unit TI3-60M is designed to connect up to six external temperature sensors.
- Units range TI3 support the connection of the following temperature sensors:
  - TC / TZ - 2-wire connections
  - Ni1000, Pt1000, Pt100 - 2-wire and 3-wire.
- It is used in cases where it is necessary to read the temperature, eg floor/room, indoor/outdoor temperature, process equipment - boiler, solar heating, etc.
- Unit status is indicated by green RUN LED on the front panel:
  - If the supply voltage is connected (the unit is powered via the bus CIB), but there is no communication with the master, RUN LED is lit continuously.
  - If the supply voltage is connected and the unit communicates via standard CIB, RUN LED flashes.
- The status on individual temperature inputs is indicated by the relevant red LED on the front panel – exceeding the scope or interruption of the sensor.
- TI3-60M in 3 module is designed for switchboard mounting on DIN rail EN60715.

TECHNICAL PARAMETERS

INPUT

Temperature input for temperature measuring:	6 x input to externa temperature sensor TC, TZ, Ni1000, Pt1000, Pt100 see accessories
Emperature measurement range:	by type of sensor, probe from -30°C to 250°C
Converter resolution:	14 bit
Overload indicator or sensor break	6x red LED

COMMUNICATION

Installation BUS:	CIB
Status indication unit:	green LED RUN

POWER SUPPLY

Supply voltage/rated current:	27 V DC/45 mA, from CIB BUS

CONNECTION

Terminal:	0.5 mm² - 1 mm²

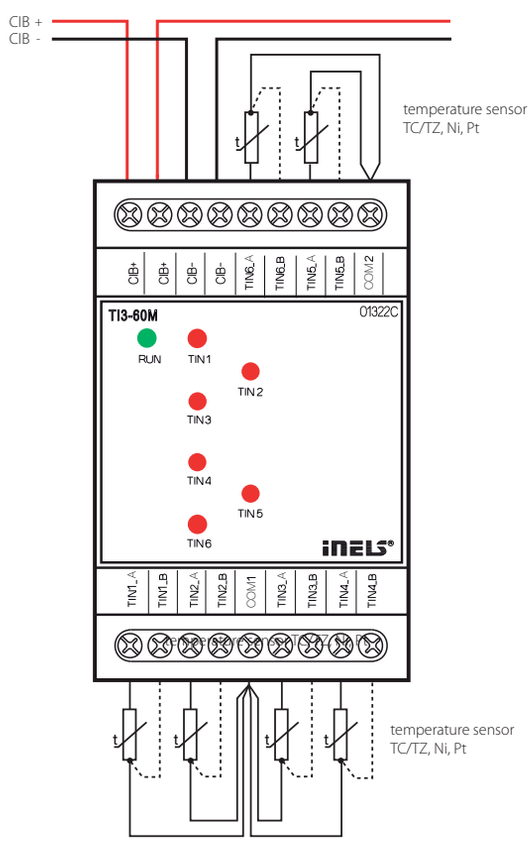
OPERATING CONDITIONS

Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP 20 device, IP 40 mounting in the switchboard
Overvoltage category:	II.
Pollution degree:	2
Operating position:	any
Installation:	into a switchboard rail to DIN EN 60715

DIMENSIONS AND WEIGHT

Dimensions:	90 x 52 x 65 mm
Weight:	102 g

Example of connection



EAN code

ADC3-40M 8595188132596

- ADC3-40M is an analog-to-digital converter and is equipped with 4 analog inputs and 2 temperature inputs.
- Analog inputs are used to connect analog sensors that generate a voltage or current signal.
- The analog inputs have a resolution of a 14-bit AD converter.
- The analog inputs have a common terminal GND.
- Analog inputs are configurable in IDM independently as voltage (U) or current (I).
- ADC3-40M is designed to capture as analog voltage signals from a weather station.
- The red LED on the front panel indicate overload of the analog input or sensor break.
- The temperature inputs at the top of the terminal are used to connect the following temperature sensors:
  - TC / TZ - 2-wire connections
  - Ni 1000, Pt1000, Pt100 - 2-wire and 3-wire connections.
- ADC3-40M in 3-MODULE version i s designed for mounting into a switchboard, on a DIN rail EN60715.

TECHNICAL PARAMETERS

INPUTS

Analog inputs:	4x voltage or current input
Thermo inputs:	2x input for external temperature sensor TC, TZ,Ni 1000, Pt1000, Pt100 see accessories
Emperature measurement range:	Depending on the sensor from -30°C to 250°C
Number of inputs:	4
Galv. separation from inner circuits:	No
Diagnostic:	Overload indicator or sensor break the corresponding red LED
Common terminal:	GND
Type of converter:	approximate
Converter resolution:	14 bits
Input resistance (for voltage ranges):	approx. 200 kΩ
Input types/ Measuring ranges (for each input individually optional by confi guration in user program IDM):	Voltage (U) : 0 ÷ +10 V (U) 0 ÷ +5 V (U) 0 ÷ +2 V (U) 0 ÷ +1 V (U) 0 ÷ +0.5 V (U) Current (I) : 0 ÷ +20 mA (I) 4 ÷ +20 mA (I)

COMMUNICATION

Installation BUS:	CIB
Unit status indication:	green LED RUN

POWER SUPPLY

Supply voltage/rated current:	27 V DC/50 mA, from CIB BUS

CONNECTION

Terminal:	max. 2.5 mm²/1.5 mm² with sleeve

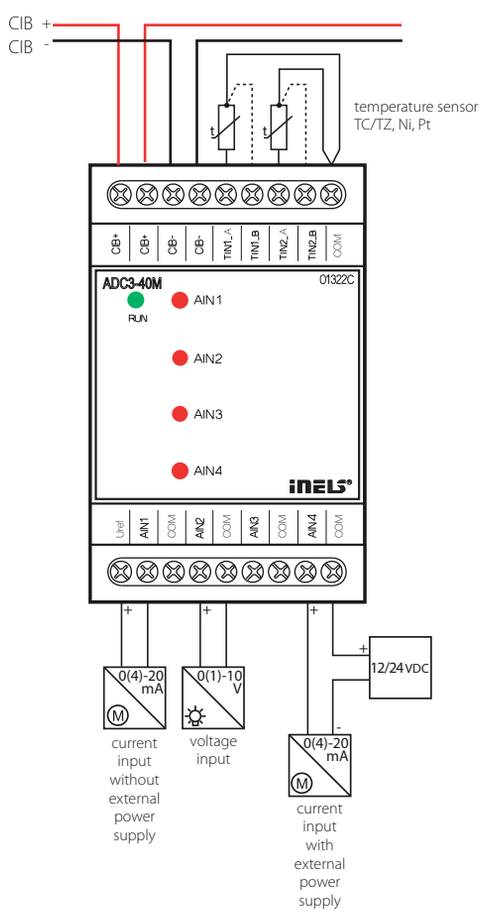
OPERATING CONDITIONS

Operating temperature:	-20 to +55°C
Storing temperature:	-30 to +70°C
Protection degree:	IP 20 device, IP 40 mounting in the switchboard
Overvoltage category:	II.
Pollution degree:	2
Operating position:	any
Installation:	into a switchboard rail to DIN EN 60715
Design:	3-MODULE

DIMENSIONS AND WEIGHT

Dimensions:	90 x 52 x 65 mm
Weight:	112 g

Example of connection



- DAC3-04B is converter of a digital signal to an analog voltage signal.
- The converter generates 4 analog voltage signals, which can be regulated according to type of controlled device, in a range 0-10V or 1-10V.
- It serves for regulation and control for devices, which are controlled by 0-10V or 1-10V signal (lamp ballast for fluorescent lights, dimmers, thermo heads, servo motors, measuring elements, regulation devices, etc.).
- Range of output voltage is adjustable in IDM.
- DAC3-04B is equipped with a temperature input for connecting a 2-wire external sensor TC / TZ.
- DAC3-04B in version B is designed for mounting into an installation box.

EAN code

DAC3-04B 8595188132572

TECHNICAL PARAMETERS

INPUTS

Temperature measuring:	YES, input for external temperature sensor TC/TZ
Range / accuracy of temp. measuring:	-20 to +100°C; 0.5°C from the range

OUTPUTS

Analog voltage output / rated current:	4x 0(1)-10 V/10 mA

COMMUNICATION

Installation BUS:	CIB
Status indication unit:	green LED RUN

POWER SUPPLY

Supply voltage/rated current:	27 V DC/50 mA, from CIB BUS

CONNECTION

Terminal:	0.5 - 1 mm²

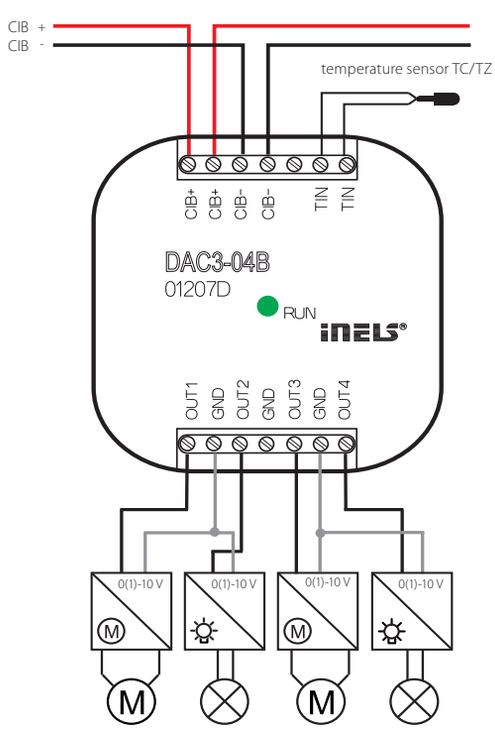
OPERATING CONDITIONS

Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP 30
Overvoltage category:	II.
Pollution degree:	2
Operating position:	any
Installation:	into installation box

DIMENSIONS AND WEIGHT

Dimensions:	49 x 49 x 13 mm
Weight:	33 g

Example of connection



EAN code

DAC3-04M 8595188132565

- DAC3-04B is a converter from a digital signal to an analog voltage signal.
- The converter generates 4 analog voltage signals, which can be operated, according to type of controlled device, in a range 0-10V or 1-10V.
- It serves for regulation and control for devices, which are controlled by 0-10V or 1-10V signal (lamp ballast for fluorescent lights, dimmers, thermo heads, servo motors, measuring elements, regulation devices, etc.).
- Range of output voltage is adjustable in IDM.
- Converter is equipped with a temperature input for connecting a 2-wire external sensor TC/TZ (see accessories).
- DAC3-04M in 3-MODULE version is designed for mounting into a switchboard, on DIN rail EN60715.

TECHNICAL PARAMETERS

INPUT

Analog voltage output/rated current:	4x 0(1)-10 V/10 mA
Range / accuracy of temp. measuring:	-20 to +100°C; 0.5°C from the range

OUTPUTS

Analog voltage output/max. current:	4x 0(1)-10 V/10 mA
Indication of output overload:	red LED OVERLOAD

COMMUNICATION

Installation BUS:	CIB
Data transfer indication:	yellow LED

POWER SUPPLY

Supply voltage/rated current:	27 V DC/50 mA, from CIB BUS

CONNECTION

Terminal:	max. 2.5 mm²/1.5 mm² with sleeve

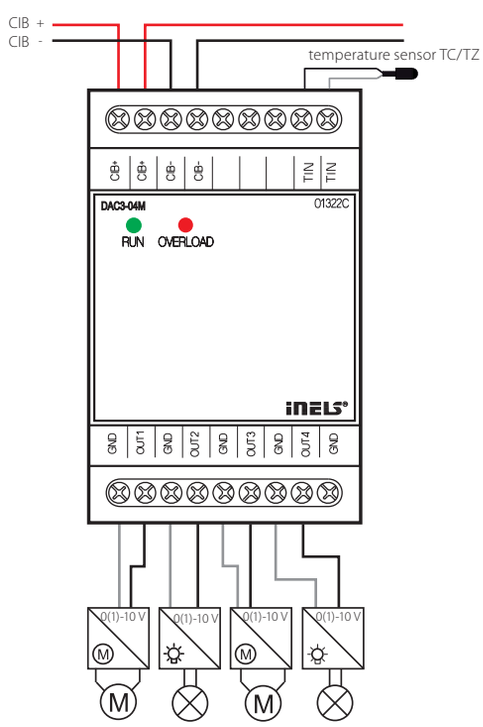
OPERATING CONDITIONS

Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP 20 device, IP 40 mounting in the switchboard
Overvoltage category:	II.
Pollution degree:	2
Operating position:	any
Installation:	switchboard on DIN rail EN 60715
Design:	3-MODULE

DIMENSIONS AND WEIGHT

Dimensions:	90 x 52 x 65 mm
Weight:	102 g

Example of connection



EAN code

EST3 (white frame, white intermediate frame, white back cover) - 8595188177009
EST3 (black frame, dark gray intermediate frame, dark gray back cover) - 8595188177016

TECHNICAL PARAMETERS

DISPLAY

Type:	colored TFT LCD
Aspect ratio:	3:4
Visible area:	52.5 x 70 mm
Backlight:	active
Touchpad:	4-wire resistive
Display:	3.5"
Number of points:	240 x 320
Color Depth:	16.7M (24 bit color)

POWER SUPPLY

Supply voltage / rated current:	27V DC/ 150 mA

CONNECTION

Connection:	terminals
Connecting conductors profile:	max. 2.5mm^2/1.5mm^2 with sleeve

OPERATING CONDITIONS

Operating temperature:	0 to +55°C
Storing temperature:	- 20 to +70°C
Protection degree:	IP20
Overvoltage category:	II.
Pollution degree:	2
Operating position:	any
Installation:	installation box

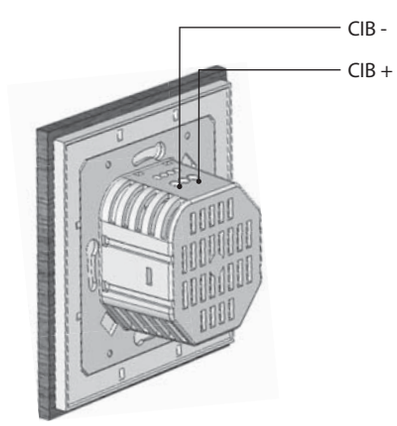
DIMENSIONS AND WEIGHT

Dimensions	94 x 94 x 30 mm
Weight:*:	EST3 (127 g)

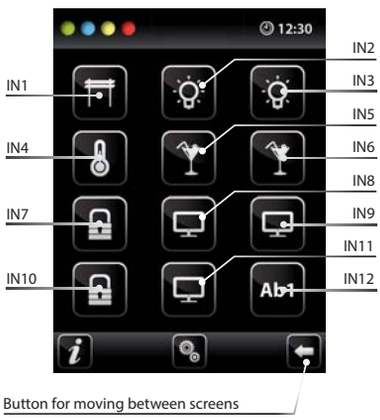
* Weight is listed with plastic frame

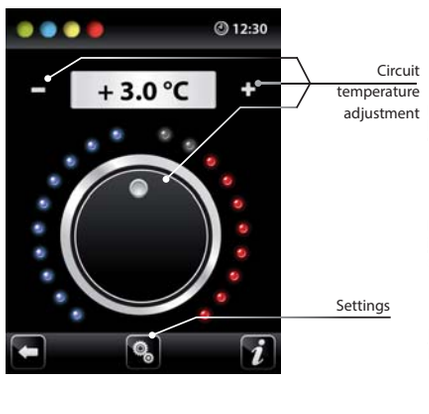
- The control unit with touch screen EST3 is a suitable control element of the iNELS system in places where it is necessary to control multiple devices. The unit replaces several drivers and enables minimizing the number of switches on the wall.
- EST3 features a 3.5 "color touchscreen with an aspect ratio of 3:4. The basic display resolution is 240 x 320 pixels. The color depth of 16.7 million colors (24 bit color, True Color).
- Use the touch sensing surface to control configured buttons and symbols on the screen just by a light touch of a finger. Individual symbols on the screen are in the "Press" animated by the associated output in the system.
- EST3 can have a combination of these screens:
  - Buttons screen
  - Temperature control screen
  - Control RGB light sources screen
  - Security keyboard screen
- Buttons screen can be set in the menu and can be optionally configured according to user requirements . There are four basic templates of buttons matrix - 2x2, 2x3, 3x3 and 3x4 . The screen can then have up to 12 buttons to control up to 12 appliances or scenes.
- In the configuration buttons menu, it is possible to assign a symbol (icon) of the preset menu to individual keys from the selected templat (48 different symbols - bulb, blinds, party scene, etc.), possibly write to the button three alphanumeric characters.
- The temperature control screen enables correction of the temperature of the selected heating circuit in the range of ± 5 ° C, or entering of the desired temperature in absolute value.
- The virtual wheel can be used for temperature correction, where you can drag your finger across the screen to control the temperature by half a degree Celsius.
- The temperature correction can also be used instead of the virtual wheel symbols "+ " and "- " .
- EST3 units do not have an integrated temperature sensor, or terminals for connection to an external temperature sensor. Within the IDM software, it is possible to assign any unit of heat input system iNELS.
- The control RGB light sources screen allows you to comfortably control your RGB light sources and adjust the luminous atmosphere as needed.
- For these RGB light sources , it is possible to use the controls on the screen to adjust the color and brightness. It is also possible to directly set the RGB illumination light source into white color.
- Located in the left upper corner of the screen are 4 indicators that can signal the status of any logical input / output in the iNELS system.
- In the settings menu, you can define the language menu, screen saver, sleep mode, brightness settings, select the default display and devices display mode of EST3
- Unit EST3 is on the CIB represented by one hardware address.
- EST3 are designed as LOGUS90 devices (EST3 however cannot be placed into multi-frames with other devices in this design) and are intended for mounting to installation box.

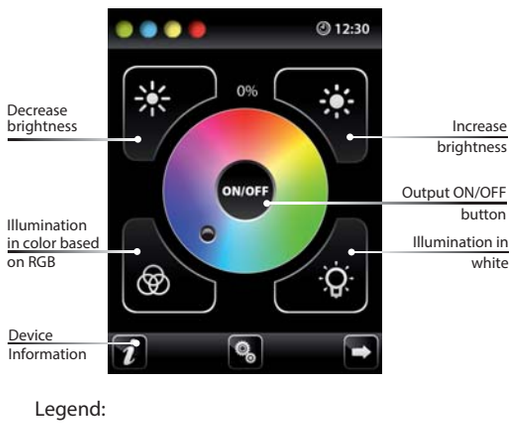
POWER SUPPLY



THE SCREENSHOTS







Legend:

EST3=> settings menu=>design selection=>2x2 - input IN1- IN4
EST3=> settings menu=>design selection=>2x3 - input IN1- IN6
EST3=> settings menu=>design selection=>3x3 - input IN1- IN9
EST3=> settings menu=>design selection=>3x4 - input IN1- IN12

BUTTONS SCREEN

- Programming iNELS system functions on each button on the screen units EST3 is the same as programming other digital inputs or events for input or button units.
- Buttons can be configured as well as other inputs in the system, both for short and also long press (> 1.5 s).
- Buttons (icons) on the screen can be used instead of control outputs for visualization of one of the digital outputs of the system iNELS. This is made possible by assigning button to the desired output.
- In doing so, the button (icons) on the screen EST3 will become signal lamps (illuminated button), showing the state of the associated output.

HEATING CONTROL SCREEN

- On the temperature control screen, the temperature of the selected heating circuit can be corrected in the range of ± 5 ° C.
- Based on the configuration in the settings menu however, it is possible to directly enter the required absolute temperature value of the given heating circuit.
- The virtual wheel can be used for temperature correction, where you can drag your finger across the screen to control the temperature by half a degree Celsius.
- The temperature correction can also be used instead of the virtual wheel symbols "+ " and "- " .

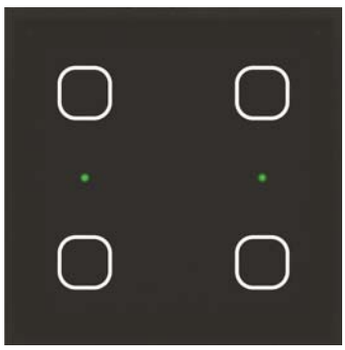
RGB LAMP AND LIGHT SOURCE CONTROL SCREEN

- The RGB light sources control screen contains controls for managing the desired color and brightness of the RGB light sources.
- RGB control screen function is set up so that the colors R, G, B are bound together and simulate the signal level on analog inputs R, G, B and the resulting brightness of the lamp is linked to a simulated analog input 0 to 100%.
- The RGB control display is comprised of several elements and buttons.
  - A long press (touch) on the ON/OFF controls the central setting of RGB components and lamp brightness - on/off
  - Buttons in the upper half of the screen are for setting the lamp brightness from 0-100% in 5% increments (see adjustable brightness indicator in %)
  - Buttons in the lower half of the screen are for setting the color comfort and accelerated lamp RGB control. The buttons have a lock function. When pressing "white illumination" button, the analog inputs are automatically set to the maximum value of individual color components, which appears as a resulting white light at the RGB light source output when these components are mixed. Then simply adjust the brightness intensity at the output. When pressing (touching) the button "RGB-based color illumination", the "white illumination" , button automatically unlocks, and the "RGB-based color illumination" settings button locks..Now the values of analog inputs of individual RGB color components are preset according to the set cursor in the color wheel of the RGB scale on the EST3.

- **ADDITIONAL INFORMATION:**
- Info gives information on the device and firmware version. Clicking the icon brings you to the settings menu, used to edit the EST3. The icon returns to the buttons panel.
- The system time is displayed in the upper right corner of the screen.
- In the case of request for changing the original screen (panel) buttons, it is always necessary to perform RESET of the device before configuration of icons (buttons).

All inputs and outputs on the EST3 unit can be freely programmed and parameterized using the IDM program.

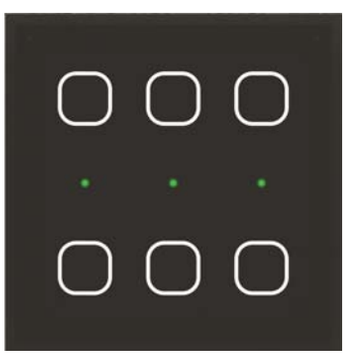
GSB3-40



EAN code

GSB3-40 8595188132909

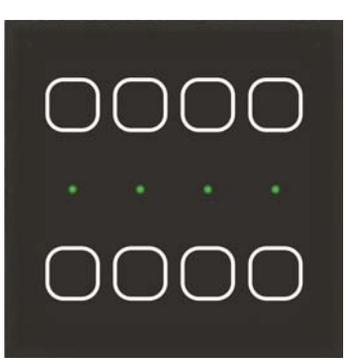
GSB3-60



EAN code

GSB3-60 8595188132916

GSB3-80



EAN code

GSB3-80 8595188132923

- The wall controller with touch controls series GSB3 is a design element (controller) in the system iNELS with elegant and comfortable control.
- Two-colored indication LED, located in each position of controller, can signal status of a controlled appliance, as well as the status of any sensor or actuator in the system.
- Controllers are 4-channels (GSB3-80), 6-channels (GSB3-60) and 8-channels (GSB3-80), but currently our department of research and development is working on other variants of controllers with other graphic changes and for RGB controlling.
- All versions are in the same dimension as a basic modular wall-switch (94x94 mm), in design LOGUS^{90}.
- Each controller is equipped with a thermo sensor. It is equipped with two analog-digital inputs (AIN / DIN), and it is possible to connect two potentialless contact or an external temperature sensor TC / TZ. (for example on floor temperature measurement)
- The main advantages against the standard buttons/switches are space saving and comfort control.
- Advantages over conventional switches/buttons include space saving, signaling of any output system, the ability to measure temperature and also the ability to connect external buttons or detectors.
- Each channel(button) can control any actuator (appliance) in the system. It is also possible to program various functions or fuction macro (set of functions) to each button. This allows you to control several appliances with one button simultaneously.
- Each button (channel) can have different functional modes beside lighting control:

  a) Classic wall-switch:
  - upper button ON, bottom button OFF

  b) Button controller (impulse relay):
  - first press ON, second press OFF

  c) Dimmer:
  - short press – ON/OFF,

  d) Time switch:
  - ON after press, automatically OFF after set time

  e) Setting light scenes – for example: for watching TV:
  - shutters down
  - TV ON
  - main light 30% intensity
  - wall-lamps 50% intensity.

- GSB3 in LOGUS^{90} design is intended for mounting into wiring box.

TECHNICAL PARAMETERS

INPUTS	GSB3-40	GSB3-60	GSB3-80
Temperature measuring:	YES, built-in thermo sensor, NTC		
Scope and accuracy of temp. measurement:	0 to +55°C ; 0.3°C from the range		
Number of control buttons:	4	6	8
Inputs:	2x AIN/DIN		
Resolution:	by setting bit 10		
Ext. temperature sensor:	Yes, the connection between AIN1/DIN1 and AIN2/DIN2		
Type ext. sensor:	TC/TZ		
Temperature measurement range:	-20°C to +100°C		
Temperature measurement accuracy:	+0.5°C from range		

OUTPUTS			
Indications:	two-colored LED (red, green)		
Number:	2	3	4

COMMUNICATION	
Installation BUS:	CIB

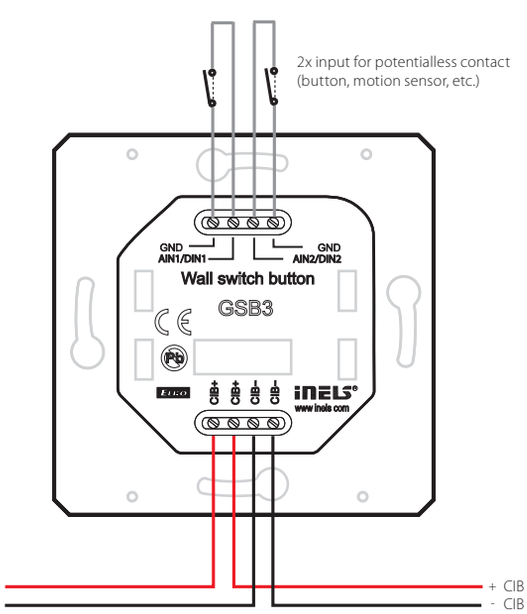
POWER SUPPLY	
Supply voltage/rated current:	27 V DC/ 25 - 40 mA, from CIB BUS

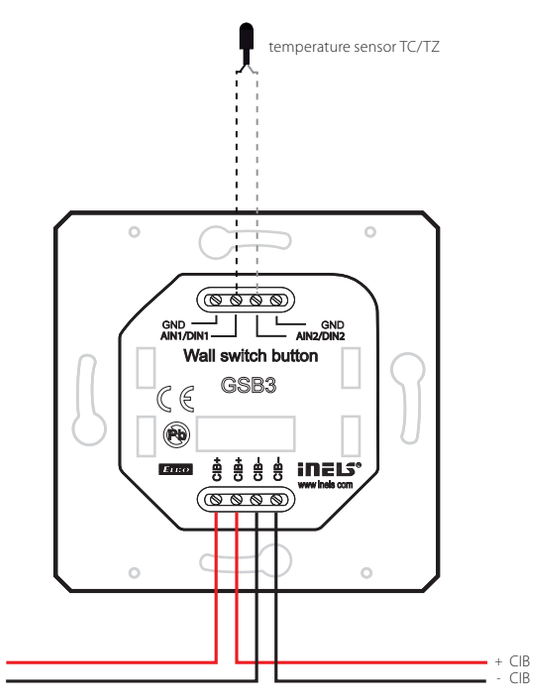
CONNECTION	
Terminals:	0.5 - 1 mm^2

OPERATING CONDITIONS	
Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP 20
Overvoltage category:	II.
Pollution degree:	2
Operation position:	any
Installation:	into installation box

DIMENSIONS AND WEIGHT	
Dimensions:	94 x 94 x 30 mm
Weight:	70 g (without frame)

Example of connection





WSB3-20

EAN code
WSB3-20 8595188132343

WSB3-40

EAN code
WSB3-40 8595188132336

TECHNICAL PARAMETERS

INPUTS	WSB3-20	WSB3-40
Temperature measuring:	YES, built-in temperature sensor, NTC	
Scope and accuracy of temp. measurement:	0 to +55°C ; 0.3°C from the range	
Number of control buttons:	2	4
Inputs:	2x AIN/DIN	
Resolution:	by setting, bit 10	
Ext. temperature sensor:	Yes, the connection between AIN1/DIN1 and AIN2/DIN2	
Type ext. sensor:	TC/TZ	
Temperature measurement range:	-20°C to +100°C	
Temperature measurement accuracy:	+0,5°C from range	

OUTPUTS		
Indication:	two-colored LED (red, green)	
Number of outputs:	1	2

COMMUNICATION	
Installation BUS:	CIB

POWER SUPPLY	
Supply voltage/rated current:	27 V DC/25 mA, from CIB BUS

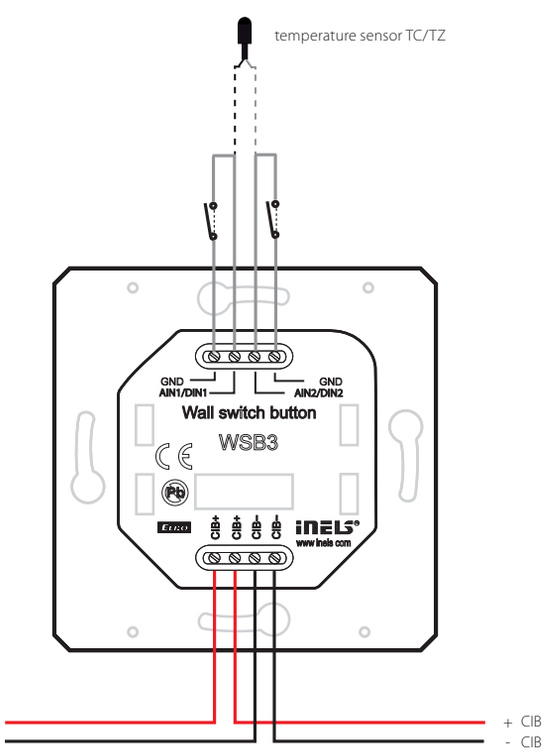
CONNECTION	
Terminals:	0.5 - 1 mm^2

OPERATING CONDITIONS	
Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP 20
Overvoltage category:	II.
Pollution degree:	2
Operation position:	any
Installation:	into installation box

DIMENSIONS AND WEIGHT	
Dimensions (plastic):	85.6 x 85.6 x 30 mm
Dimensions (metal, glass, wood, granite):	94 x 94 x 30 mm
Weight:	70 g (without frame)

- Wall controllers with low-upstroke control (line) WSB3 are the main and most frequently used units (controller) in the iNELS system.
- Built-in micro-buttons with low upstroke offer elegant and easy control.
- Two-colored indication LED, located in each position of controller, can signal status of controlled appliance, and also status of any sensor or actuator in the system.
- Controllers are designed as two-channel (WSB3-20) or four-channel (WSB3-40).
- All versions are in the same dimension as a basic modular wall-switch (94x94 mm), in Logus^{90} design and can be combined into multiframes with other devices of this line.
- Each controller is equipped with a temperature sensor. It is also equipped with two analog/digital inputs (AIN/DIN), which can be used to connect two potentialless contacts or one external temperature sensor TC/TZ (e.g. for measuring floor temperature).
- Advantages over conventional switches / buttons include space saving, signaling of any output system, the ability to measure temperature and the possibility to connect external buttons or detectors.
- Each channel (button) can control any actuator (appliance) in the system. It is also possible to program various functions or macro function (set of functions) to each button. Allowing you to control several appliances with one button simultaneously.
- Each button (fold) can have different functional modes beside lighting control:
  a) Classic wall switch:
  - upper button ON, bottom button OFF
  b) Button controller (impulse relay):
  - first press ON, second press OFF
  c) Dimmer:
  - short press – ON/OFF,
  d) Time switch:
  - ON after press, automatically OFF after set time
  e) Setting light scenes – for example: for watching TV:
  - shutters down
  - TV ON
  - main light 30% intensity
  - wall lamps 50% intensity
- WSB3 in LOGUS^{90} design is designed for mounting into an installation box.

Example of connection



EAN code

WMR3-11 8595188132756

- WMR3-11 is a wall-mounted card reader that is designed for read contactless media (smart cards, key chains, etc.).
- It can be used for security system controlling (locking/unlocking), as a access system (doors, gates, etc.) and also as a control of appliances operating (due to the designed permitions).
- WMR3-11 supports RFID media with frequence 125 kHz and with IC type Unique 64 bits Ask Manchester.
- It contains two buttons (UP/DOWN) with same functions as WSB3-20.
- Indication two-color LED in the controller cover can indicate not only the status of controlled appliance, but also the status of any sensor or actuator in the system.
- WMR3-11 is also equipped with 8A relay output with changeover contact $AgSnO_2$, by which controlled devices can be switched directly (or any actuator in the system can be set in software IDM).
- WMR3-11 in LOGUS90 design is intended for mounting into wiring box.

TECHNICAL PARAMETERS

INPUTS

Number of control buttons:	2

CARD READER

Type:	RFID 125 kHz ± 6 kHz
Supported cards:	ISO Card Unique
IC Type:	Unique 64 Bits RF/64 ASK Manchester, compatible with EM4100

OUTPUTS

Output:	1x changeover 8A / $AgSnO_2$
Indication:	red, green LED
Acustic output:	piezo-changer
Switching voltage:	230V AC/ 30V DC
Switching output:	2000 VA/AC1; 240 W/DC
Peak current:	20 A/<3s
Insulation voltage between relay outputs and internal circuits:	3.75 kV, SELV according to EN 60950
Minimal switched current:	10 mA / 10 V
Switching frequency without load:	300 min^{-1}
Switching frequency with rated load:	15 min^{-1}
Mechanical life:	1 x 10^7
Electrical life AC1:	1 x 10^5

COMMUNICATION

Installation BUS:	CIB BUS

POWER SUPPLYÍ

Supply voltage/rated current:	27 V DC/50 mA, from CIB

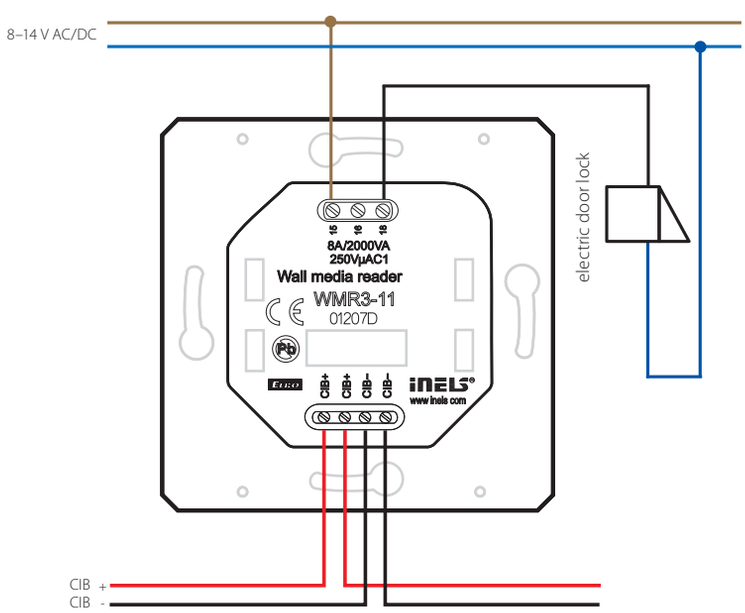
CONNECTION

Data:	terminals, 0.5 - 1 mm^2
Network:	max. 2.5 mm^2/1.5 mm^2 with sleeve
Operating temperature:	-20 to +55 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP20
Overvoltage category:	II.
Pollution degree:	2
Operation position:	any
Installation:	into installation box

DIMENSIONS AND WEIGHT

Dimensions (plastic):	85.6 x 85.6 x 30 mm
Dimensions (metal, glass, wood, granite):	94 x 94 x 30 mm
Weight:	82 g (without frame)

Example of connection



EAN code

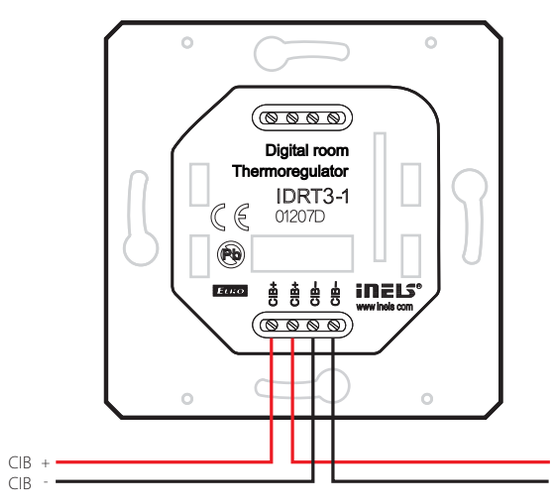
IDRT3-1 8595188132510

- With IDRT3-1 the circuit heating/cooling can be corrected to within ± 5 ° C, or you can enter the desired temperature in the room in absolute value.
- The display shows the current temperature and after pressing one of two buttons under the display, you can control the desired temperature.
- Readability improves after pressing one of the buttons to activate the backlight.
- Heating/cooling circuit is assigned with a thermo-regulator using iNELS Designer and Manager (IDM) .
- In the case of temperature correction within ± 5 °C, this change is valid until the next time mark within the time schedule established in IDM .
- IDRT3 -1 in design LOGUS90 is intended for mounting into an installation box.

TECHNICAL PARAMETERS

INPUTS	IDRT3-1
Temperature measuring:	YES, built-in thermo sensor NTC
Range / accuracy of temp.measuring:	0 to +55°C; 0.3°C from range
Heating/cooling circuit correction:	±5°C or abs. value
Manual ontrol of heating/ cooling circuit:	2 x buttons
COMMUNICATION	
Installation:	CIB
Display:	symbol display
Backlight:	YES
POWER SUPPLY	
Supply voltage/rated current:	27 V DC/20 mA from CIB BUS
CONNECTION	
Terminals:	0.5 - 1 mm^2
OPERATING CONDITIONS	
Operating temperature:	0 to +50 °C
Protection degree:	IP 20
Overvoltage category:	II.
Pollution degree:	2
Operation position:	vertical, downward with CIB terminal
Installation:	into installation box
DIMENSIONS AND WEIGHT	
Dimensions (plastic):	85.6 x 85.6 x 20 mm
Dimensions (metal, glass, wood, granite):	94 x 94 x 20 mm
Weight:	73 g

Example of connection



Connection Server

It serves as a connection between iNELS system units and another devices because it allows communication between devices with different protocols. Except the common controlling of iNELS electro-installation, it enables also e.g. control of air conditioning through iHC application or control of Miele household appliances through Video zone.

iMM Server

iMM multimedia server has functions of Connection Server. It enables you to share pictures, music, video, TV and internet between Audio and Video zones which are placed in one house. It also enables you to control and monitor all units in iNELS electro-installation through the Videozones (TV).

iHC-MA **iHC-TA** **iHC-MI** **iHC-TI**

Smartphone **Tablet** **iPhone** **iPad**

Applications for system control for your tablet or smartphone

Development of smartphones and tablets and development of applications for these devices go together. You can control your electro-installation through the applications in your iPhone, iPad, Smartphone or tablet with the Android operating system. As opposed to our competitors, we provide you a solution assuring you that your household appliances can be controlled through just one application. You will find here whatever you need – it provides you full managing, monitoring and checking of your house.

You can control not only lighting or heating, but also it enables you to switch the TV programs, play music and control air conditioning. iHC is an acronym of iNELS Home Control and letters after the hyphen means devices (T= tablet, M = mobile / smartphone) and operating system (Android = A, I = iOS / Apple).

The applications are available on AppleStore and GooglePay (former AndroidMarket).

	iNELS BUS System (bus electro installation)				iNELS RF Control (wireless electro installation)				
	Android		iOS		Android		iOS		Samsung
	Tablet	Phone	iPad	iPhone	Tablet	Phone	iPad	iPhone	Smart TV
	iHC-TA	iHC-MA	iHC-TI	iHC-MI	iHC-TARF	iHC-MARF	iHC-TIRF	iHC-MIRF	iHC-STV
Lighting	✓	✓	✓	✓		✓		✓	✓
Blinds	✓	✓	✓	✓		✓		✓	✓
Socket	✓	✓	✓	✓		✓		✓	✓
Garage doors, gates	✓	✓	✓	✓		✓		✓	✓
RGB bulbs, LED strips	✓	✓	✓	✓		✓		✓	✓
Scenes	✓	✓	✓	✓		✓		✓	✓
Heating	✓	✓	✓	✓		o		o	o
Multimedia	✓	✓	✓	✓	o	X	o	X	X
Cameras	✓	✓	✓	✓		✓		✓	o
Air-conditioning (LG)	✓	✓	✓	✓		X		X	X
Recuperation (Air Pohoda, Atrea)	✓	✓	✓	✓		X		X	X
Coolmaster (LG, Fujitsu, Mitsubishi)	✓	✓	✓	✓		X		X	X
Home appliances (MIELE)	✓	✓	✓	✓		X		X	X
Weather station	✓	✓	✓	✓		X		X	X
Measurement and visualization of energy	✓	✓	✓	✓		X		X	X
Door communicator and Intercom	✓	✓	✓	✓		X		X	X
Other code:	8595188146357	8595188160513	8595188149822	8595188149792	8595188149877	8595188149860	859588150545	859188150552	8595188150590

o Coming Soon ✓ Supported X not supported

Applications are **free** to download at Download on the App Store or Google play and are supported by Android OS 2.3 or later and iOS

www.elkoep.cz/aplikace

EAN code

TELVA 230V, NC 8595188172042
TELVA 230V, NO 8595188172059
TELVA 24V, NC 8595188172066
TELVA 24V, NO 8595188172073

- The thermo electric drive TELVA is intended for zone or individual regulation with high differential pressures.
- Regulating thermostatic valves of floor, radiator and convector heating.
- Stepped through the valve-adapter VA, the thermodrive can be used for a wide range of thermostatic valves which are available on the market.
- Thermo drive TELVA is used to regulate heating in the iNELS RF Control a iNELS BUS Systems:
  - TELVA 230 V and TELVA 24 V with any system switching actuator
  - TELVA 230 V and TELVA 24 V : work in the open / closed modes.
- Main features:
  - noise-free operation
  - design: without voltage opened / without voltage closed
  - valve position visual indicator.
- Application:
  TELVA 230V and TELVA 24V standard with valve-adapter VA 80 * in the low version with rod M30 x 1.5 (white-gray). This valve-adapter is compatible with valves Manufacturers: Heimeier, MNG (from 1998), Onda, Oventrop (from 1997), Schlosser, Beulco (from 2005), Bohnish-BK (from 1998), Cazzaniga, Dumser, Honeywell&Braukmann, Ivar, Reich (distributor), Bohnisch-SBK.

TECHNICAL PARAMETERS

	TELVA 230 V	TELVA 24 V
Operating voltage:	230V, 50/60 Hz	24V, 50/60 Hz
Switching current max:	300 mA for max. 200 ms	250 mA for max. 2 min
Operating current:	8 mA	75 mA
Closing / opening time:	dtto 3 min.	dtto 3 min.
Power input:	1.8 W	1.8 W
Protection:	IP 54/II	IP 54/II
Settings:	4 mm	4 mm
Stopping force:	100 N ±5 %	100 N ±5 %
Cable length:	1 m	1 m
Connecting wire:	2 x 0.75 mm^2	2 x 0.75 mm^2
Media temperature:	0 to +100 °C	0 to +100 °C
Color:	white RAL 9003	white RAL 9003
Dimensions h/w/d:	55+5 x 44 x 61 mm	55+5 x 44 x 61 mm

* Note: The valve adapter VA-80 may not be compatible with all types valves of listed manufacturers. For these valves and other manufacturers other types of valve adapter can be supplied.

TC

EAN code

TC-0	8595188110075
TC-3	8595188110617
TC-6	8595188110082
TC-12	8595188110099

TZ

EAN code

TZ-0	8595188140591
TZ-3	8595188110600
TZ-6	8595188110594
TZ-12	8595188110587

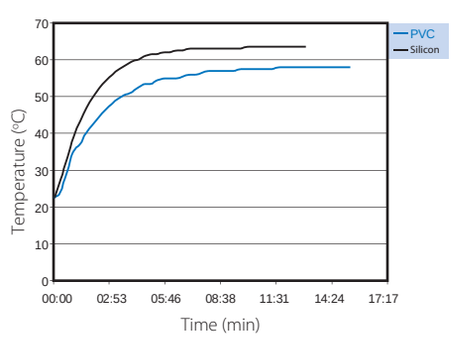
- Temperature sensors TC and TZ are designed for temperature sensing
- The temperature sensors are made from NTC and sealed in a metal tube by thermoconductive glue
- Thermal contact between thermistor and thermal sensor surroundings
- Sensor TZ is suitable mainly in extreme temperatures
- 2 types of thermal sensors:
  - TC - service wire to sensor TC is made of conductor CYSY 2D x 0.02 ˝
  - TZ - sensor TZ is made of wire VO3SS-F 2D x 0.5mm with silicon insulation
- Dimensions of the sensors TC
  - TC-0 - 5 g (0.2 oz.)
  - TC-3 - 108 g (3.8 oz.)
  - TC-6 - 213 g (7.5 oz.)
  - TC-12 - 466 g (16.4 oz.)

Dimensions of the sensors TZ

- TZ-0 - 4.5 g (0.16 oz.)
- TZ-3 - 106 g (3.74 oz.)
- TZ-6 - 216 g (7.6 oz.)
- TZ-12 - 418g (14.7 oz.)

	TC	TZ
Range:	0 °C to +70 °C (32 °F to 158 °F)	-40 °C to +125 °C (-40 °F to 257 °F)
Scanning element:	NTC 12K 5 %	NTC 12K 5 %
τ65 - in air/ in water:	92 s / 23 s	62 s / 8 s
τ95 - in air/ in water:	306 s / 56 s	216 s / 23 s
Cable material:	Heat-resistant PVC	silicone
Terminal material:	Heat-resistant PVC	nickel-coated copper
Protection degree:	IP 67	IP 67

Diagram of sensor warm up via air



PVC -reaction to water temperature from 22.5 °C to 58 °C (from 72.5 °F to 136.4 °F)

Silicone - reaction to water temperature from 22.5 °C to 63.5 °C (from 72.5 °F to 144.5 °F)

Temperature (ºC /ºF)	Sensor resistance(kΩ)
20	14.7
30	9.8
40	6.6
50	4.6
60	3.2
70	2.3

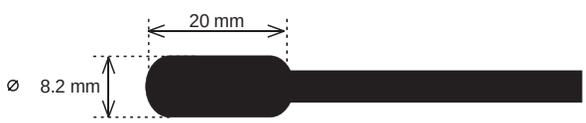
Temperature sensors for range 0°C to +70°C (32°F to 158°F)

TC-0 - temperature sensor can be connected directly to terminal block (lenght of sensor 110mm/ 4.33˝)
TC-3 - temperature sensor 3 m (9.8´)
TC-6 - temperature sensor 6 m (19.7´)
TC-12 - temperature sensor 12 m (39.4´)

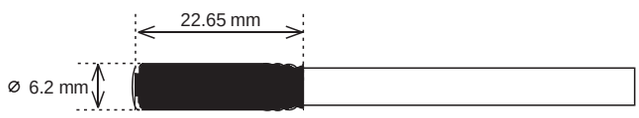
Temperature sensors for range -40°C to +125°C (-40°F to 257°F)

TZ-0 - temperature sensor can be connected directly to terminal block (lenght of sensor 110mm/ 4.33˝)
TZ-3 - temperature sensor 3 m (9.8´)
TZ-6 - temperature sensor 6 m (19.7´)
TZ-12 - temperature sensor 12 m (39.4´)

Sensor TC drawing



Sensor TZ drawing



Sensor TC-3 photo

Sensor TZ-3 photo

Loadability of contacts

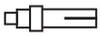
SA3-02B; SA3-06M; SA3-012M; WMR3-11									
Type of load	AC1	AC2	AC3	AC5a uncompensated	AC5a compensated	AC5b	AC6a	AC7b	AC12
Contact materialAgSnO$_2$ contact 8A	250V / 8A	250V / 2.5A	250V / 1.5A	230V / 1.5A (345VA)	230V / 1.5A (345VA) till max output C=14uF	250W	250V / 4A	250V / 1A	250V / 1A
Type of load	AC13	AC14	AC15	DC1	DC3	DC5	DC12	DC13	DC14
Contact materialAgSnO$_2$ contact 8A	x	250V / 3A	250V / 3A	24V / 8A	24V / 3A	24V / 2A	24V / 8A	24V / 1A	x

LBC3-02M; SA3-01B; SA3-02M; SA3-04M									
Type of load	AC1	AC2	AC3	AC5a uncompensated	AC5a compensated	AC5b	AC6a	AC7b	AC12
Contact materialAgSnO$_2$ contact 16A	250V / 16A	250V / 5A	250V / 3A	230V / 3A (690VA)	230V / 3A (690VA) till max output C=14uF	1 500W	x	250V / 3A	250V / 10A
Type of load	AC13	AC14	AC15	DC1	DC3	DC5	DC12	DC13	DC14
Contact materialAgSnO$_2$ contact 16A	250V / 6A	250V / 6A	250V / 6A	24V / 16A	24V / 6A	24V / 4A	24V / 16A	24V / 2A	24V / 2A

SA3-02B/Ni; SA3-06M/Ni; SA3-012M/Ni									
Type of load	AC1	AC2	AC3	AC5a uncompensated	AC5a compensated	AC5b	AC6a	AC7b	AC12
Contact materialAgNi * contact 8A	250V / 8A	250V / 2.5A	250V / 1.5A	230V / 1.5A (345VA)	x	400W	x	250V / 1.5A	250V / 5A
Type of load	AC13	AC14	AC15	DC1	DC3	DC5	DC12	DC13	DC14
Contact materialAgNi * contact 8A	250V / 3A	250V / 3A	250V / 3A	24V / 8A	24V / 3A	24V / 2A	24V / 8A	24V / 1A	24V / 1A

SA3-01B/Ni; SA3-02M/Ni; SA3-04M/Ni									
Type of load	AC1	AC2	AC3	AC5a uncompensated	AC5a compensated	AC5b	AC6a	AC7b	AC12
Contact materialAgNi * contact 16A	250V / 16A	250V / 5A	250V /3A	230V / 3A (690VA)	x	800W	x	250V / 3A	250V / 10A
Type of load	AC13	AC14	AC15	DC1	DC3	DC5	DC12	DC13	DC14
Contact materialAgNi * contact16A	250V / 6A	250V / 6A	250V / 6A	24V / 16A	24V / 6A	24V / 4A	24V / 16A	24V / 2A	24V / 2A

Demonstrated symbols are informative
*Products with AgNi contact only up on request for extra charge.

Load	bulbs, halogen bulbs	12–24V low-voltage bulbs, coil transformers	12–24V low-voltage bulbs, electric transformers	LEDs	energy-saving fluorescent tubes	control method	
							
	R	L	C	dimmable	dimmable	entering edge	trailing edge
DA3-22M	●	●	●	●	●	●	●

MINIMUM LOAD		
RELAY CONTACT	mV	V/mA
$AgSnO_2$	1000	10/100

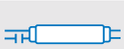
MINIMUM LOAD		
RELAY CONTACT	mV	V/mA
AgNi	300	5/10

Explanations

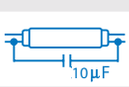
El. bulbs loads: (R)
el. bulb, halogen light

Dimmer with defined load:
R - resistive, L - inductive, C - capacitive

Fluorescent light:
fluorescent lights uncompensated



Fluorescent light:
fluorescent light compensated in series



Fluorescent light:
fluorescent light compensated in parallel

Fluorescent light:
fluorescent light economical

Elektronic ballasts for fluorescent

Inductive loads (transformers): (L)
feromagnetic and toroid transformers for lights with various voltage.

Explanations

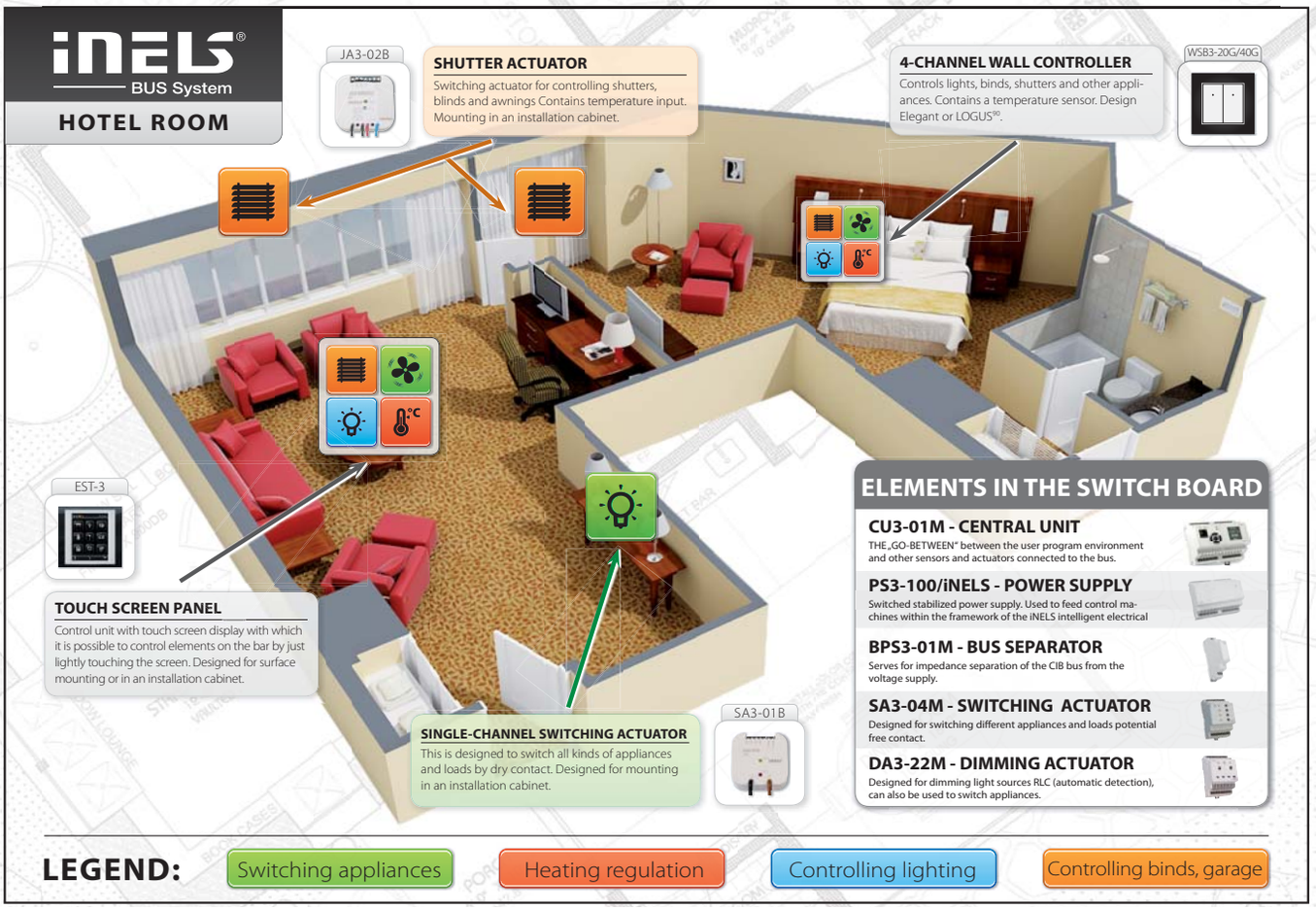
Switch:
switch - control contact of various device

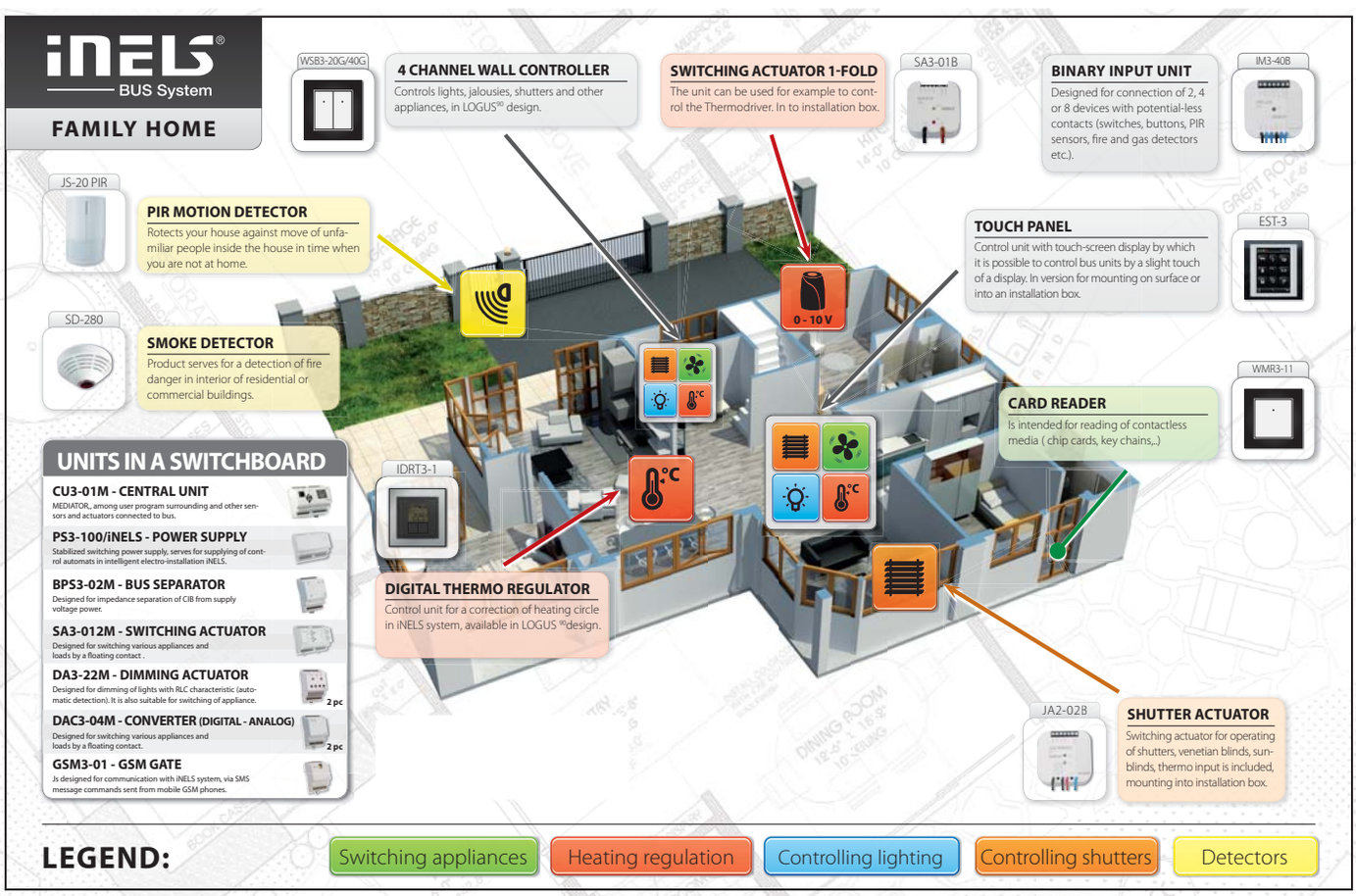
Button:
control button

Control module:
analog control module 0 - 10 V

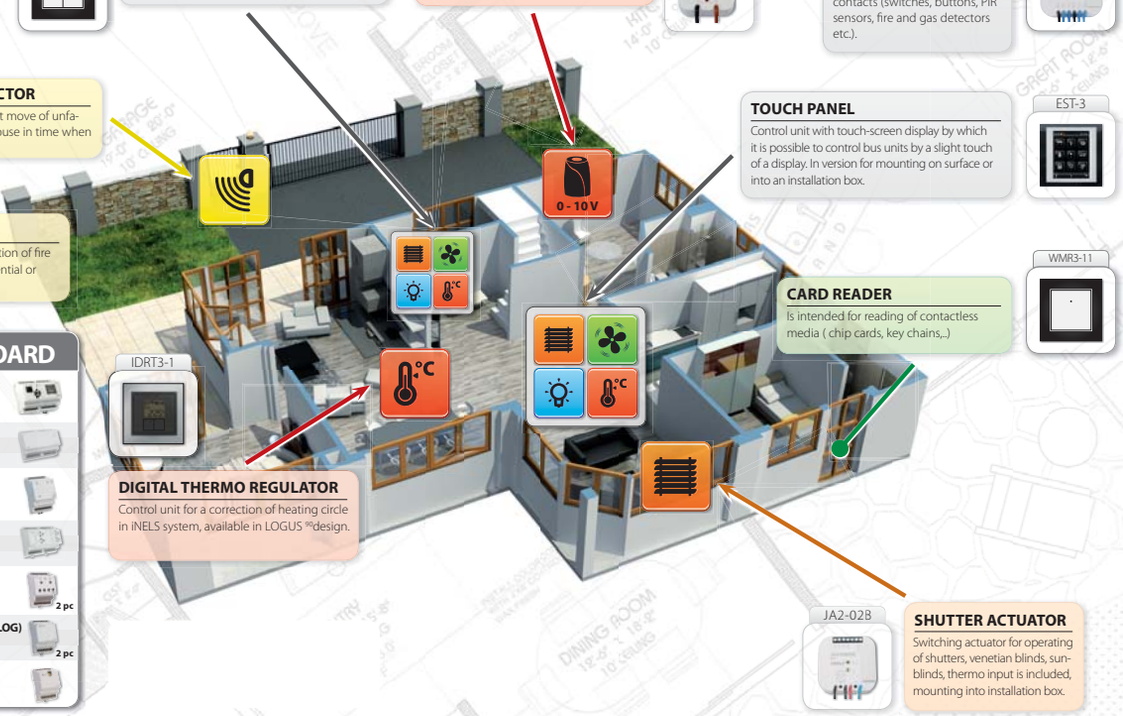
Motor

AC1	non-inductive or low inductive loads resistive furnaces
AC3	motors with short-way armatour, start-up of motors in operation
AC15	managemens of AC electromagnetic loads
DC1	non-inductive or low inductive loads, resistive furnaces


iNELS BUS System
HOTEL ROOM
JA3-02B
SHUTTER ACTUATOR
Switching actuator for controlling shutters, blinds and awnings Contains temperature input. Mounting in an installation cabinet.
4-CHANNEL WALL CONTROLLER
Controls lights, binds, shutters and other appliances. Contains a temperature sensor. Design Elegant or LOGUS90.
WSB3-20G/40G
EST-3
TOUCH SCREEN PANEL
Control unit with touch screen display with which it is possible to control elements on the bar by just lightly touching the screen. Designed for surface mounting or in an installation cabinet.
SINGLE-CHANNEL SWITCHING ACTUATOR
This is designed to switch all kinds of appliances and loads by dry contact. Designed for mounting in an installation cabinet.
SA3-01B
ELEMENTS IN THE SWITCH BOARD
CU3-01M - CENTRAL UNIT
THE „GO-BETWEEN" between the user program environment and other sensors and actuators connected to the bus.
PS3-100/iNELS - POWER SUPPLY
Switched stabilized power supply. Used to feed control machines within the framework of the iNELS intelligent electrical
BPS3-01M - BUS SEPARATOR
Serves for impedance separation of the CIB bus from the voltage supply.
SA3-04M - SWITCHING ACTUATOR
Designed for switching different appliances and loads potential free contact.
DA3-22M - DIMMING ACTUATOR
Designed for dimming light sources RLC (automatic detection), can also be used to switch appliances.
LEGEND:
Switching appliances
Heating regulation
Controlling lighting
Controlling binds, garage


iNELS BUS System
FAMILY HOME
WSB3-20G/40G
4 CHANNEL WALL CONTROLLER
Controls lights, jalousies, shutters and other appliances, in LOGUS90 design.
SWITCHING ACTUATOR 1-FOLD
The unit can be used for example to control the Thermodriver. In to installation box.
SA3-01B
BINARY INPUT UNIT
Designed for connection of 2, 4 or 8 devices with potential-less contacts (switches, buttons, PIR sensors, fire and gas detectors etc.).
IM3-40B
JS-20 PIR
PIR MOTION DETECTOR
Rotects your house against move of unfamiliar people inside the house in time when you are not at home.
TOUCH PANEL
Control unit with touch-screen display by which it is possible to control bus units by a slight touch of a display. In version for mounting on surface or into an installation box.
EST-3
SD-280
SMOKE DETECTOR
Product serves for a detection of fire danger in interior of residential or commercial buildings.
0 - 10 V
WMR3-11
CARD READER
Is intended for reading of contactless media (chip cards, key chains,..)
UNITS IN A SWITCHBOARD
CU3-01M - CENTRAL UNIT
MEDIATOR,, among user program surrounding and other sensors and actuators connected to bus.
PS3-100/iNELS - POWER SUPPLY
Stabilized switching power supply, serves for supplying of control automats in intelligent electro-installation iNELS.
BPS3-02M - BUS SEPARATOR
Designed for impedance separation of CIB from supply voltage power.
SA3-012M - SWITCHING ACTUATOR
Designed for switching various appliances and loads by a floating contact .
DA3-22M - DIMMING ACTUATOR
Designed for dimming of lights with RLC characteristic (automatic detection). It is also suitable for switching of appliance.
2 pc
DAC3-04M - CONVERTER (DIGITAL - ANALOG)
Designed for switching various appliances and loads by a floating contact.
2 pc
GSM3-01 - GSM GATE
Js designed for communication with iNELS system, via SMS message commands sent from mobile GSM phones.
IDRT3-1
DIGITAL THERMO REGULATOR
Control unit for a correction of heating circle in iNELS system, available in LOGUS 90design.
JA2-02B
SHUTTER ACTUATOR
Switching actuator for operating of shutters, venetian blinds, sunblinds, thermo input is included, mounting into installation box.
LEGEND:
Switching appliances
Heating regulation
Controlling lighting
Controlling shutters
Detectors

iNELS BUS System
FAMILY HOME



WSB3-20G/40G

4 CHANNEL WALL CONTROLLER
Controls lights, jalousies, shutters and other appliances, in LOGUS^{90} design.

SWITCHING ACTUATOR 1-FOLD
The unit can be used for example to control the Thermodriver. In to installation box.

SA3-01B

BINARY INPUT UNIT
Designed for connection of 2, 4 or 8 devices with potential-less contacts (switches, buttons, PIR sensors, fire and gas detectors etc.).

IM3-40B

JS-20 PIR

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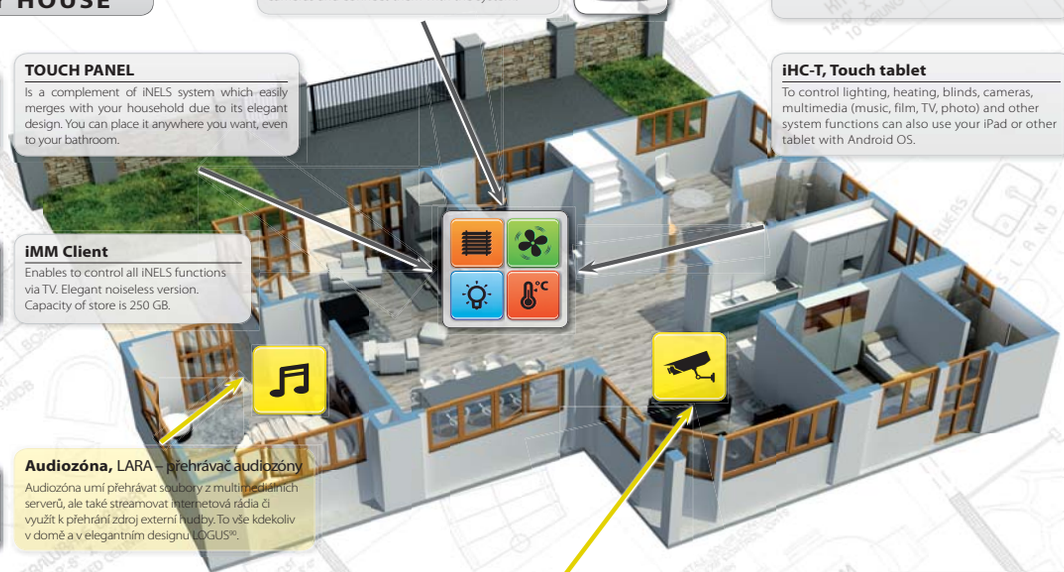
LEGEND: Switching appliances | Heating regulation | Controlling lighting | Controlling shutters | Detectors

iNELS smart home solutions
multimedia extension
FAMILY HOUSE



TELEVISION
Due to a clear projection on a TV screen you have a perfect overview about happening inside home and even outside of it. It is only necessary to install cameras and connect them with the system.

TV

iHC-M, iPHONE/Smart phone
Comfortable control of home automation systems via your iPHONE, Smart phone.

iPHONE

iTP-B

TOUCH PANEL
Is a complement of iNELS system which easily merges with your household due to its elegant design. You can place it anywhere you want, even to your bathroom.

iHC-T, Touch tablet
To control lighting, heating, blinds, cameras, multimedia (music, film, TV, photo) and other system functions can also use your iPad or other tablet with Android OS.

iTP-T

iMM Client

iMM Client
Enables to control all iNELS functions via TV. Elegant noiseless version. Capacity of store is 250 GB.

LARA

Audiozóna, LARA – přehrávač audiozóny
Audiozóna umí přehrávat soubory z multimediálních serverů, ale také streamovat internetová rádia či využít k přehrání zdroj externí hudby. To vše kdekoliv v domě a v elegantním designu LOGUS^{90}.

IP HLÁSKA

SATELIT

SATELLITE
Via satellite receiver you can watch up to 4 satellite channels at once, if they are placed on a same transponder.

INDOOR CAMERA
System supports connection, display and control of IP cameras including PTZ (position control, image extension, record,…)

KAMERA

DOORPHONE COMMUNICATOR
Door communicator with top technologies and a unique design. It is a communication system supporting voice and movie transmission.

LEGEND: Switching appliances | Heating regulation | Light control | Shutter control | Media